**3GPP TSG-RAN3 Meeting #114-bis-e R3-221209**

**Electronic meeting, 17 - 26 January 2022**

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| *CR-Form-v11.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.423** | **CR** | **0745** | **rev** | **1** | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | RAN Slicing enhancement | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_Slice-Core | | | | |  | | ***Date:*** | | 2022-1-3 |
|  |  | | | |  | | |  | |  |
| ***Category:*** | **B** |  | | | | | | ***Release:*** | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12) Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Support of UE-Slice-MBR | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To support UE Slice MRB enforcement in mobility and DC scenario, the following changes are made  1. Add *UE Slice Maximum B*it Rate IE in HANDOVER REQUEST message and *UE Context Information – Retrieve UE Context Response* IE.  2. Add *S-NG-RAN node UE Slice Maximum Bit Rate* IE and corresponding desciptions in S-NODE ADDITION REQUEST message and S-NODE MODIFICATION REQUEST message. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The UE Slice MBR cannot be enforced in mobility and DC scenario. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | |  | | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | TS/TR ... CR ... | | | |
| ***affected:*** | |  | **X** | Test specifications | | | TS/TR ... CR ... | | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | TS/TR ... CR ... | | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | rv1, updated according to the agreemeets RAN3 114-bis-e meeting | | | | | | | | |

*<Start of change>*

8.2.1 Handover Preparation

8.2.1.1 General

This procedure is used to establish necessary resources in an NG-RAN node for an incoming handover. If the procedure concerns a conditional handover, parallel transactions are allowed. Possible parallel requests are identified by the target cell ID when the source UE AP IDs are the same.

The procedure uses UE-associated signalling.

8.2.1.2 Successful Operation



**Figure 8.2.1.2-1: Handover Preparation, successful operation**

The source NG-RAN node initiates the procedure by sending the HANDOVER REQUEST message to the target NG-RAN node. When the source NG-RAN node sends the HANDOVER REQUEST message, it shall start the timer TXnRELOCprep.

If the *Conditional Handover Information Request* IE is contained in the HANDOVER REQUEST message, the target NG-RAN node shall consider that the request concerns a conditional handover and shall include the *Conditional Handover Information* *Acknowledge* IE in the HANDOVER REQUEST ACKNOWLEDGE message.

If the *Target NG-RAN node UE XnAP ID* IE is contained in the *Conditional Handover Information Request* IE included in the HANDOVER REQUEST message, then the target NG-RAN node shall remove the existing prepared conditional HO identified by the *Target NG-RAN node UE XnAP ID* IE and the *Target Cell Global ID* IE. It is up to the implementation of the target NG-RAN node when to remove the HO information.

Upon reception of the HANDOVER REQUEST ACKNOWLEDGE message, the source NG-RAN node shall stop the timer TXnRELOCprep and terminate the Handover Preparation procedure. If the procedure was initiated for an immediate handover, the source NG-RAN node shall start the timer TXnRELOCoverall. The source NG-RAN node is then defined to have a Prepared Handover for that Xn UE-associated signalling.

For each *E-RAB ID* IE included in the *QoS Flow To Be Setup List* IE in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store the content of the IE in the UE context and use it for subsequent inter-system handover.

If the *Masked IMEISV* IE is contained in the HANDOVER REQUEST message the target NG-RAN node shall, if supported, use it to determine the characteristics of the UE for subsequent handling.

At reception of the HANDOVER REQUEST message the target NG-RAN node shall prepare the configuration of the AS security relation between the UE and the target NG-RAN node by using the information in the *UE Security Capabilities* IE and the *AS Security Information* IE in the *UE Context Information* IE, as specified in TS 33.501 [28].

Upon reception of the *PDU Session Resource Setup List* IE, contained in the HANDOVER REQUEST message, the target NG-RAN node shall behave the same as specified in TS 38.413 [5] for the PDU Session Resource Setup procedure. The target NG-RAN node shall report in the HANDOVER REQUEST ACKNOWLEDGE message the successful establishment of the result for all the requested PDU session resources. When the target NG-RAN node reports the unsuccessful establishment of a PDU session resource, the cause value should be precise enough to enable the source NG-RAN node to know the reason for the unsuccessful establishment.

For each PDU session if the *PDU Session Aggregate Maximum Bit Rate* IE is included in the *PDU Session Resources To Be Setup List* IE contained in the HANDOVER REQUEST message, the target NG-RAN node shall store the received PDU Session Aggregate Maximum Bit Rate in the UE context and use it when enforcing traffic policing for Non-GBR QoS flows for the concerned UE as specified in TS 23.501 [7].

For each QoS flow for which the source NG-RAN node proposes to perform forwarding of downlink data, the source NG-RAN node shall include the *DL Forwarding* IE set to "DL forwarding proposed" within the *Data Forwarding and* *Offloading Info from source NG-RAN node* IE in the *PDU Session Resources To Be Setup List* IE in the HANDOVER REQUEST message. The source NG-RAN node shall include the *DL Forwarding* IE set to "DL forwarding proposed" for all the QoS flows mapped to a DRB, if it requests a DAPS handover for that DRB. For each PDU session that the target NG-RAN node decides to admit the data forwarding for at least one QoS flow, the target NG-RAN node includes the *PDU Session level DL data forwarding GTP-U Tunnel Endpoint* IE within the *Data Forwarding Info from target NG-RAN node* IE in the *PDU Session Resource Admitted Info* IE contained in the *PDU Session Resources Admitted List* IE in the HANDOVER REQUEST ACKNOWLEDGE message.

For each QoS flow for which the source NG-RAN node has not yet received the SDAP end marker packet if QoS flow re-mapping happened before handover, the source NG-RAN node shall include the *UL Forwarding* *Proposal* IE within the *Data Forwarding and Offloading Info from source NG-RAN node* IE in the HANDOVER REQUEST message, and if the target NG-RAN node decides to admit uplink data forwarding for at least one QoS flow, the target NG-RAN node may include the *PDU Session Level UL Data Forwarding UP TNL Information* IE in the *Data Forwarding Info from target NG-RAN node* IE in the *PDU Session Resources Admitted Item* IE contained in the *PDU Session Resources Admitted List* IE in the HANDOVER REQUEST ACKNOWLEDGE message to indicate that it accepts the uplink data forwarding.

For each PDU session resource successfully setup at the target NG-RAN, the target NG-RAN node may allocate resources for additional Xn-U PDU session resource GTP-U tunnels, indicated in the *Secondary Data Forwarding Info from target NG-RAN node List* IE.

For each PDU session in the HANDOVER REQUEST message, if the *Alternative QoS Parameters Set List* IE is included in the *GBR QoS Flow Information* IE in the *PDU Session Resources To Be Setup List* IE, the target NG-RAN node may accept the setup of the involved QoS flow when notification control has been enabled if the requested QoS parameters set or at least one of the alternative QoS parameters sets can be fulfilled at the time of handover as specified in TS 23.501 [7]. In case the target NG-RAN node accepts the handover fulfilling one of the alternative QoS parameters it shall indicate the alternative QoS parameters set which it can currently fulfil in the *Current QoS Parameters Set Index* IE within the *PDU Session Resources Admitted List* IE of the HANDOVER REQUEST ACKNOWLEDGE message while setting the QoS parameters towards the UE according to the requested QoS parameters set as specified in TS 23.501 [7].

For each DRB for which the source NG-RAN node proposes to perform forwarding of downlink data, the source NG-RAN node shall include the *DRB ID* IE and the mapped *QoS Flows List* IE within the *Source DRB to QoS Flow Mapping List* IE contained in the *PDU Session Resources To Be Setup List* IE in the HANDOVER REQUEST message. The source NG-RAN node may include the *QoS Flow Mapping Indication* IE in the *Source DRB to QoS Flow Mapping List* IE to indicate that only the uplink or downlink QoS flow is mapped to the DRB. If the target NG-RAN node decides to use the same DRB configuration and to map the same QoS flows as the source NG-RAN node, the target NG-RAN node includes the *DL Forwarding GTP Tunnel Endpoint* IE within the *Data Forwarding Response DRB List* IE in the HANDOVER REQUEST ACKNOWLEDGE message to indicate that it accepts the proposed forwarding of downlink data for this DRB.

The target NG-RAN node may additionally include the *Redundant DL Forwarding UP TNL Information* IE if at least one of the QoS flow mapped to the DRB is eligible to the redundant transmission feature as indicated in the *Redundant QoS Flow Indicator* IE within the *PDU Session Resource To Be Setup List* IE received in the HANDOVER REQUEST message for the QoS flow.

If the HANDOVER REQUEST ACKNOWLEDGE message contains the *UL Forwarding GTP Tunnel Endpoint* IE for a given DRB in the *Data Forwarding Response DRB List* IE within *Data Forwarding Info from target NG-RAN node* IE in the *PDU Session Resources Admitted List* IE and the source NG-RAN node accepts the data forwarding proposed by the target NG-RAN node, the source NG-RAN node shall perform forwarding of uplink data for the DRB.

If the HANDOVER REQUEST includes PDU session resources for PDU sessions associated to S-NSSAIs not supported by target NG-RAN, the target NG-RAN shall reject such PDU session resources. In this case, and if at least one *PDU Session Resource To Be Setup Item* IE is admitted, the target NG-RAN shall send the HANDOVER REQUEST ACKNOWLEDGE message including the *PDU Session Resources Not Admitted List* IE listing corresponding PDU sessions rejected at the target NG-RAN.

If the *Mobility Restriction List* IE is

- contained in the HANDOVER REQUEST message, the target NG-RAN node shall

- store the information received in the *Mobility Restriction List* IE in the UE context;

- use this information to determine a target for the UE during subsequent mobility action for which the NG-RAN node provides information about the target of the mobility action towards the UE, except when one of the PDU sessions has a particular ARP value (TS 23.501 [7]) in which case the information shall not apply;

- use this information to select a proper SCG during dual connectivity operation.

- use this information to select proper RNA(s) for the UE when moving the UE to RRC\_INACTIVE.

- not contained in the HANDOVER REQUEST message, the target NG-RAN node shall

- consider that no roaming and no access restriction apply to the UE.

If the *Trace Activation* IE is included in the HANDOVER REQUEST message the target NG-RAN node shall, if supported, initiate the requested trace function as specified in TS 32.422 [23].

If the *Index to RAT/Frequency Selection Priority* IE is contained in the HANDOVER REQUEST message, the target NG-RAN node shall store this information and use it as defined in TS 23.501 [7].

If the *UE Context Reference at the S-NG-RAN* IE is contained in the HANDOVER REQUEST message the target NG-RAN node may use it as specified in TS 37.340 [8]. In this case, the source NG-RAN node may expect the target NG-RAN node to include the *UE Context Kept Indicator* IE set to "True" in the HANDOVER REQUEST ACKNOWLEDGE message, which shall use this information as specified in TS 37.340 [8].

For each PDU session, if the *Network Instance* IE is included in the *PDU Session Resource To Be Setup List* IE and the *Common Network Instance* IE is not present, the target NG-RAN node shall, if supported, use it when selecting transport network resource as specified in TS 23.501 [7].

Redundant transmission:

- For each PDU session, if the *Redundant UL NG-U UP TNL Information at UPF* IE is included in the *PDU Session Resource To Be Setup List* IE, the target NG-RAN node shall, if supported, use it as the uplink termination point for the user plane data for the redundant transmission for the concerned PDU session.

- For each PDU session, if the *Additional Redundant UL NG-U UP TNL Information at UPF List* IE is included in the *PDU Session Resource To Be Setup List* IE, the target NG-RAN node shall, if supported, use them as the uplink termination points for the user plane data for the redundant transmission for the concerned PDU session.

- For each PDU session, if the *Redundant Common Network Instance* IE is included in the *PDU Session Resource To Be Setup List* IE, the target NG-RAN node shall, if supported, use it when selecting transport network resource for the redundant transmission as specified in TS 23.501 [7].

- For each PDU session, if the *Redundant PDU Session Information* IE is included in the *PDU Session Resource To Be Setup List* IE contained in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store the received information in the UE context and set up the redundant user plane for the concerned PDU session, as specified in TS 23.501 [7].

If the *TSC Traffic Characteristics* IE is included in the *QoS Flows To Be Setup* List in the *PDU Session Resource To Be Setup List* IE, the target NG-RAN node shall, if supported, use it as specified in TS 23.501 [7].

For each PDU session, if the *Common* *Network Instance* IE is included in the *PDU Session Resource To Be Setup List* IE or in the *Additional UL NG-U UP TNL Information at UPF List* IE, or in the *Additional Redundant UL NG-U UP TNL Information at UPF List* IE, the target NG-RAN node shall, if supported, use it when selecting transport network resource for the concerned NG-U transport bearer as specified in TS 23.501 [7].

For each PDU session for which the *Security Indication* IE is included in the *PDU Session Resource To Be Setup List* IE and the *Integrity Protection Indication* IE or *Confidentiality Protection Indication* IE is set to "required", the target NG-RAN node shall perform user plane integrity protection or ciphering, respectively. If the NG-RAN node is not able to perform the user plane integrity protection or ciphering, it shall reject the setup of the PDU Session Resources with an appropriate cause value.

If the NG-RAN node is an ng-eNB, it shall reject all PDU sessions for which the *Integrity Protection Indication* IE is set to "required".

For each PDU session for which the *Security Indication* IE is included in the *PDU Session Resource To Be Setup List* IE and the *Integrity Protection Indication* IE or the *Confidentiality Protection Indication* IE is set to "preferred", the target NG-RAN node should, if supported, perform user plane integrity protection or ciphering, respectively and shall notify the SMF whether it succeeded the user plane integrity protection or ciphering or not for the concerned security policy.

For each PDU session for which the *Maximum Integrity Protected Data Rate* IE is included in the *Security Indication* IE in the *PDU Session Resources To Be Setup List* IE, the NG-RAN node shall store the respective information and, if integrity protection is to be performed for the PDU session, it shall enforce the traffic corresponding to the received *Maximum Integrity Protected Data Rate* IE, for the concerned PDU session and concerned UE, as specified in TS 23.501 [7].

For each PDU session for which the *Security Indication* IE is included in the *PDU Session Resource To Be Setup List* IE and the *Integrity Protection Indication* IE or *Confidentiality Protection Indication* IE is set to "not needed", the target NG-RAN node shall not perform user plane integrity protection or ciphering, respectively, for the concerned PDU session.

For each PDU session, if the *Additional UL NG-U UP TNL Information List* IE is included in the *PDU Session Resources To Be Setup List* IE contained in the HANDOVER REQUEST message, the target NG-RAN node may forward the UP transport layer information to the target S-NG-RAN node as the uplink termination point for the user plane data for this PDU session split in different tunnel.

If the *Location Reporting Information* IE is included in the HANDOVER REQUEST message, then the target NG-RAN node should initiate the requested location reporting functionality as defined in TS 38.413 [5].

Upon reception of *UE History Information* IE in the HANDOVER REQUEST message, the target NG-RAN node shall collect the information defined as mandatory in the *UE History Information* IE and shall, if supported, collect the information defined as optional in the *UE History Information* IE, for as long as the UE stays in one of its cells, and store the collected information to be used for future handover preparations.

If the *Trace Activation* IE is included in the HANDOVER REQUEST message which includes

- the *MDT Activation* IE set to "Immediate MDT and Trace", then the target NG-RAN node shall if supported, initiate the requested trace session and MDT session as described in TS 32.422 [23].

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", the target NG-RAN node shall, if supported, initiate the requested MDT session as described in TS 32.422 [23] and the target NG-RAN node shall ignore the *Interfaces To Trace* IE, and the *Trace Depth* IE.

- the *MDT Location Information* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, store this information and take it into account in the requested MDT session.

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", and if the *Signalling based MDT PLMN List* IE is included in the *MDT Configuration* IE, the target NG-RAN node may use it to propagate the MDT Configuration as described in TS 37.320 [43].

- the *Bluetooth Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *WLAN Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *Sensor Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall take it into account for MDT Configuration as described in TS 37.320 [43].

- the *MDT Configuration* IE and if the target NG-RAN node is a gNB at least *the MDT Configuration-NR* IE shall be present, while if the target NG-RAN node is an ng-eNB at least the *MDT Configuration-EUTRA* IE shall be present. If the target NG-RAN node is a gNB receiving a *MDT Configuration-EUTRA* IE, or the target NG-RAN node is a ng-eNB receiving a *MDT Configuration-NR* IE, the target NG-RAN node shall store it as part of the UE context, and propagate it at the next Xn handover as described in TS 37.320 [43].

If the *Management Based MDT PLMN List* IE is contained in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store the received information in the UE context, and use this information to allow subsequent selection of the UE for management based MDT defined in TS 32.422 [23].

If the HANDOVER REQUEST message includes the *Management Based MDT PLMN List* IE, the target NG-RAN node shall take it into account if it includes information regarding the PLMN serving the UE in the target NG-RAN node.

If the *Mobility Information* IE is provided in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store this information. The target NG-RAN shall, if supported, store the C-RNTI assigned at the source cell as received in the HANDOVER REQUEST message.

Upon reception of the *UE History Information from the UE* IE in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store the collected information and use it for future handover preparations.

For each QoS flow which has been successfully established in the target NG-RAN node, if the *QoS Monitoring Request* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the HANDOVER REQUEST message, the target NG-RAN node shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [7]. If the *QoS Monitoring Reporting Frequency* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the HANDOVER REQUEST message, the target NG-RAN node shall store this information, and, if supported, use it for RAN part delay reporting.

If the *5GC Mobility Restriction List Container* IE is included in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store this information in the UE context and use it as specified in TS 38.300 [9].

V2X:

- If the *NR V2X Services Authorized* IE is included in the HANDOVER REQUEST message and it contains one or more IEs set to "authorized", the target NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *LTE V2X Services Authorized* IE is included in the HANDOVER REQUEST message and it contains one or more IEs set to "authorized", the target NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *NR UE Sidelink Aggregate Maximum Bit Rate* IE is included in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for NR V2X services.

- If the *LTE UE Sidelink Aggregate Maximum Bit Rate* IE is included in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for LTE V2X services.

If the *PC5 QoS Parameters* IE is included in theHANDOVER REQUEST message, the target NG-RAN node shall, if supported, use it as defined in TS 23.287 [38].

If the *DAPS Request Information* IE is included for a given DRB in the HANDOVER REQUEST message, the target NG-RAN node shall consider that the request concerns a DAPS handover for that DRB, as described in TS 38.300 [9]. Accordingly, the target NG-RAN node shall include the *DAPS Response Information* IE in the HANDOVER REQUEST ACKNOWLEDGE message.

If the *Maximum Number of CHO Preparations* IE is included in the *Conditional Handover Information* *Acknowledge* IE contained in the HANDOVER REQUEST ACKNOWLEDGE message, then the source NG-RAN node should not prepare more candidate target cells for a CHO for the same UE towards the target NG-RAN node than the number indicated in the IE.

If the *Estimated Arrival Probability* IE is contained in the *Conditional Handover Information Request* IE included in the HANDOVER REQUEST message, then the target NG-RAN node may use the information to allocate necessary resources for the incoming CHO.

If the *IAB Node Indication* IE is contained in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, consider that the handover is for an IAB node.

If the *UE Radio Capability ID* IE is contained in the HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store this information in the UE context and use it as defined in TS 23.501 [7] and TS 23.502 [13].

If the *UE Slice-Maximum Bit Rate List* IE is contained in HANDOVER REQUEST message, the target NG-RAN node shall, if supported, store the received UE Slice Maximum Bit Rate List in the UE context, and use the received UE Slice Maximum Bit Rate List for each S-NSSAI for the concerned UE as specified in TS 23.501 [7].

*<Next change>*

8.2.4 Retrieve UE Context

8.2.4.1 General

The purpose of the Retrieve UE Context procedure is to either retrieve the UE context from the old NG-RAN node and transfer it to the NG-RAN node where the UE RRC Connection has been requested to be established, or to enable the old NG-RAN node to forward an RRC message to the UE via the new NG-RAN node without context transfer.

The procedure uses UE-associated signalling.

8.2.4.2 Successful Operation



**Figure 8.2.4.2-1: Retrieve UE Context, successful operation**

The new NG-RAN node initiates the procedure by sending the RETRIEVE UE CONTEXT REQUEST message to the old NG-RAN node.

If the old NG-RAN node is able to identify the UE context by means of the UE Context ID, and to successfully verify the UE by means of the integrity protection contained in the RETRIEVE UE CONTEXT REQUEST message, and decides to provide the UE context to the new NG-RAN node, it shall respond to the new NG-RAN node with the RETRIEVE UE CONTEXT RESPONSE message.

If the *Index to RAT/Frequency Selection Priority* IE is contained in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall store this information and use it as defined in TS 23.501 [7].

If the *Location Reporting Information* IE is included in the RETRIEVE UE CONTEXT RESPONSE message, then the new NG-RAN node should initiate the requested location reporting functionality as defined in TS 38.413 [5].

If the *Trace Activation* IE is included in the RETRIEVE UE CONTEXT RESPONSE message which includes

- the *MDT Activation* IE set to "Immediate MDT and Trace", then the target NG-RAN node shall if supported, initiate the requested trace session and MDT session as described in TS 32.422 [23].

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", the target NG-RAN node shall, if supported, initiate the requested MDT session as described in TS 32.422 [23] and the target NG-RAN node shall ignore the *Interfaces To Trace* IE, and the *Trace Depth* IE.

- the *MDT Location Information* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, store this information and take it into account in the requested MDT session.

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", and if the *Signalling based MDT PLMN List* IE is included in the *MDT Configuration* IE, the target NG-RAN node may use it to propagate the MDT Configuration as described in TS 37.320 [43].

- the *Bluetooth Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *WLAN Measurement Configuration* IE, within the *MDT Configuration* IE, the target NG-RAN node shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *Sensor Measurement Configuration* IE, within the *MDT Configuration* IE, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *MDT Configuration* IE and if the target NG-RAN Node is a gNB at least *the MDT Configuration-NR* IE shall be present, while if the target NG-RAN Node is an ng-eNB at least the *MDT Configuration-EUTRA* IE shall be present.

For each QoS flow in the RETRIEVE UE CONTEXT RESPONSE message, if the *QoS Monitoring Request* IE is included in the *QoS Flow Level QoS Parameters* IE in the *PDU Session Resources To Be Setup List* IE, the new NG-RAN node shall store this information, and, if supported, perform delay measurement and QoS monitoring, as specified in TS 23.501 [7]. If the *QoS Monitoring Reporting Frequency* IE is included in the *QoS Flow Level QoS Parameters* IE in the *PDU Session Resources To Be Setup List* IE, the new NG-RAN node shall store this information, and, if supported, use it for RAN part delay reporting.

If the *5GC Mobility Restriction List Container* IE is included in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, store this information in the UE context and use it as specified in TS 38.300 [9].

V2X:

- If the *NR V2X Services Authorized* IE is included in the RETRIEVE UE CONTEXT RESPONSE message and it contains one or more IEs set to "authorized", the new NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *LTE V2X Services Authorized* IE is included in the RETRIEVE UE CONTEXT RESPONSE message and it contains one or more IEs set to "authorized", the new NG-RAN node shall, if supported, consider that the UE is authorized for the relevant service(s).

- If the *NR UE Sidelink Aggregate Maximum Bit Rate* IE is included in the *UE Context Information Retrieve UE Context Response* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for NR V2X services.

- If the *LTE UE Sidelink Aggregate Maximum Bit Rate* IE is included in the *UE Context Information Retrieve UE Context Response* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, use the received value for the concerned UE’s sidelink communication in network scheduled mode for LTE V2X services.

If the *PC5 QoS Parameters* IE is included in theRETRIEVE UE CONTEXT RESPONSE message, the target NG-RAN node shall, if supported, use it as defined in TS 23.287[38].

In case of RRC Re-establishment, the old NG-RAN may include the *UE History Information* IE or the *UE History Information from the UE* IE in the RETRIEVE UE CONTEXT RESPONSE message. Upon reception of the *UE History Information* IE or the *UE History Information from the UE* IE in the RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, store the collected information and use it for future handover preparations.

If the *UE Radio Capability ID* IE is contained in the RETRIEVE UE CONTEXT RESPONSE message, the new NG- RAN node shall, if supported store this information in the UE context and use it as defined in TS 23.501 [7] and TS 23.502 [13].

If the *UE Slice-Maximum Bit Rate List* IE is contained in RETRIEVE UE CONTEXT RESPONSE message, the new NG-RAN node shall, if supported, store the received UE Slice Maximum Bit Rate List in the UE context, and use the received UE Slice Maximum Bit Rate List for each S-NSSAI for the concerned UE as specified in TS 23.501 [7].

*<Next change>*

8.3.1 S-NG-RAN node Addition Preparation

8.3.1.1 General

The purpose of the S-NG-RAN node Addition Preparation procedure is to request the S-NG-RAN node to allocate resources for dual connectivity operation for a specific UE.

The procedure uses UE-associated signalling.

8.3.1.2 Successful Operation



**Figure 8.3.1.2-1: S-NG-RAN node Addition Preparation, successful operation**

The M-NG-RAN node initiates the procedure by sending the S-NODE ADDITION REQUEST message to the S-NG-RAN node.

When the M-NG-RAN node sends the S-NODE ADDITION REQUEST message, it shall start the timer TXnDCprep.

The allocation of resources according to the values of the *Allocation and Retention Priority* IE included in the *QoS Flow Level QoS Parameters* IE for each QoS flow shall follow the principles specified for the PDU Session Resource Setup procedure in TS 38.413 [5].

The S-NG-RAN node shall choose the ciphering algorithm based on the information in the *UE Security Capabilities* IE and locally configured priority list of AS encryption algorithms and apply the key indicated in the *S-NG-RAN node Security Key* IE as specified in TS 33.501 [28].

If the *TSC Traffic Characteristics* IE is included for a QoS flow in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall behave the same as the NG-RAN node in the PDU Session Resource Setup procedure, specified in TS 38.413 [5].

If the *Additional QoS* *Flow Information* IE is included for a QoS flow in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall behave the same as the NG-RAN node in the PDU Session Resource Setup procedure, specified in TS 38.413 [5].

For each GBR QoS flow, if the *Alternative QoS Parameters Sets* IE is included in the *GBR QoS Flow Information* IE, the S-NG-RAN node shall, if supported, behave the same as the NG-RAN node in the PDU Session Resource Setup procedure specified in TS 38.413 [5].

For each PDU session, if the *Network Instance* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE contained in the *PDU Session Resources To Be Added List* IE and the *Common Network Instance* IE is not present, the S-NG-RAN node shall, if supported, use it when selecting transport network resource as specified in TS 23.501 [7].

For each GBR QoS flow, if the *Offered GBR QoS Flow Information* IE is included in the *QoS Flows To Be Setup List* IE contained in the *PDU Session Resource Setup Info – SN terminated* IE, the S-NG-RAN node may request the M-NG-RAN node to configure the DRB to which that QoS flow is mapped with MCG resources.

For each PDU session, if the *Non-GBR Resources Offered* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE contained in the *PDU Session Resources To Be Added List* IE and set to "true", the S-NG-RAN node may request the M-NG-RAN node to configure DRBs to which non-GBR QoS flows of the PDU session are mapped with MCG resources.

For each PDU session, if the *Common* *Network Instance* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE contained in the *PDU Session Resources To Be Added List* IE, the S-NG-RAN node shall, if supported, use it when selecting transport network resource as specified in TS 23.501 [7].

Redundant transmission:

- For each PDU session, if the *Redundant UL NG-U UP TNL Information at UPF* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE, the S-NG-RAN node shall, if supported, use it as the uplink termination point for the user plane data for this PDU session for the redundant transmission and it shall include the *Redundant DL NG-U UP TNL Information at NG-RAN* IE in the *PDU Session Resource Setup Response Info – SN terminated* IE as described in TS 23.501 [9].

- For each PDU session, if the *Redundant Common Network Instance* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE the S-NG-RAN node shall, if supported, use it when selecting transport network resource for the redundant transmission as specified in TS 23.501 [7].

- For each PDU session for which the *Redundant QoS Flow Indicator* IE is include in *QoS Flows To Be Setup List* IE contained in the *S-NODE ADDITION REQUEST* message, the S-NG-RAN node shall, if supported, store and use it as specified in TS 23.501 [7].

- For each PDU session, if the *Redundant PDU Session Information* IE is included in the *PDU Session Resource Setup Info - SN terminated* IE in the S-NODE ADDITION REQUEST message, the S-NODE-RAN node shall, if supported, store the received information in the UE context and setup the redundant user plane resources for the concerned PDU session, as specified in TS 23.501 [7].

- For each PDU session resource successfully setup for which the *Redundant PDU Session Information* IE is included in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall, if supported, include the *Used RSN Information* IE in the *PDU Session Resource Setup Response Info – SN terminated* IE in the S-NODE ADDITION REQUEST ACKNOWLEDGE message.

If the S-NODE ADDITION REQUEST message contains the *Selected PLMN* IE, the S-NG-RAN node may use it for RRM purposes.

If the S-NODE ADDITION REQUEST message contains the *Expected UE Behaviour* IE, the S-NG-RAN node shall, if supported, store this information and may use it to optimize resource allocation.

If the S-NODE ADDITION REQUEST message contains the *Mobility Restriction List* IE, the S-NG-RAN node, if supported, shall store this information and use it to select an appropriate SCG.

If the S-NODE ADDITION REQUEST message contains the *Index to RAT/Frequency Selection Priority* IE, the S-NG-RAN node may use it for RRM purposes.

If the S-NG-RAN node is a gNB and the S-NODE ADDITION REQUEST message contains the *PCell ID* IE, the S-NG-RAN node shall search for the target NR cell among the NR neighbour cells of the PCell indicated, as specified in the TS 37.340 [8].

If the S-NODE ADDITION REQUEST message contains the *S-NG-RAN node PDU Session Aggregate Maximum Bit Rate* IE, the S-NG-RAN node may use it for RRM purposes.

If the S-NODE ADDITION REQUEST message contains the *MR-DC Resource Coordination Information* IE, the S-NG-RAN node should forward it to lower layers and it may use it for the purpose of resource coordination with the M-NG-RAN node, or to coordinate with sidelink resources used in the M-NG-RAN node. The S-NG-RAN node shall consider the value of the received *UL Coordination Information* IE valid until reception of a new update of the IE for the same UE. The S-NG-RAN node shall consider the value of the received *DL Coordination Information* IE valid until reception of a new update of the IE for the same UE. If the *E-UTRA Coordination Assistance Information* IE or the *NR Coordination Assistance Information* IE is contained in the *MR-DC Resource Coordination Information* IE, the S-NG-RAN node shall, if supported, use the information to determine further coordination of resource utilisation between the S-NG-RAN node and the M-NG-RAN node.

If the S-NODE ADDITION REQUEST message contains the *NE-DC TDM Pattern* IE, the S-NG-RAN node should forward it to lower layers and use it for the purpose of single uplink transmission. The S-NG-RAN node shall consider the value of the received *NE-DC TDM Pattern* IE valid until reception of a new update of the IE for the same UE.

If the S-NODE ADDITION REQUEST message contains the *QoS Flow Mapping Indication* IE, the S-NG-RAN node may take it into account that only the uplink or downlink QoS flow is mapped to the DRB.

For each bearer for which allocation of the PDCP entity is requested at the S-NG-RAN node:

- the M-NG-RAN node may propose to apply forwarding of downlink data by including the *DL Forwarding* IE within *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDITION REQUEST message. For each bearer that it has decided to admit, the S-NG-RAN node may include the *DL Forwarding GTP Tunnel Endpoint* IE within the *PDU Session Resource Setup Response Info – SN terminated* IE of the S-NODE ADDITION REQUEST ACKNOWLEDGE message to indicate that it accepts the proposed forwarding of downlink data for this bearer.

- the S-NG-RAN node may include for each bearer in the *PDU Session Resource Setup Response Info – SN terminated* IE the *UL Forwarding GTP Tunnel Endpoint* IE to indicates it request data forwarding of uplink packets to be performed for that bearer.

- the M-NG-RAN node shall include *RLC Mode* IE for each bearer offloaded from M-NG-RAN node to S-NG-RAN node in the *DRBs to QoS Flow Mapping List* IE within the *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDTION REQUEST message, and the *RLC Mode* IE indicates the mode that the M-NG-RAN used for the DRB when it was hosted at the M-NG-RAN node.

For each bearer for which the PDCP entity is at the M-NG-RAN node:

- the M-NG-RAN node shall include the *RLC mode* IE for each bearer in the *DRBs To Be Setup List* IE within the *PDU Session Resource Setup Info – MN terminated* IE of the S-NODE ADDTION REQUEST message to indicate the RLC mode has been configured at the M-NG-RAN node, so that the S-NG-RAN node shall configure the same RLC mode for this MN terminated split bearer.

The M-NG-RAN node may also propose to apply forwarding of UL data when offloading QoS flows for which in-order delivery is requested by including the *UL Forwarding* *Proposal* IE in the *Data Forwarding and Offloading Info from source NG-RAN node* IE within the *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDITION REQUEST message. The S-NG-RAN node may include the *PDU Session Level UL Data Forwarding UP TNL Information* IE in the *Data Forwarding Info from target NG-RAN node* IE within the *PDU Session Resource Setup Response Info – SN terminated* IE of the S-NODE ADDITION REQUEST ACKNOWLEDGE message to indicate that it accepts the proposed forwarding.

If the *Masked IMEISV* IE is contained in the S-NODE ADDITION REQUEST message the S-NG-RAN node shall, if supported, use it to determine the characteristics of the UE for subsequent handling.

If the *UE Radio Capability ID* IE is contained in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall, if supported, store this information in the UE context and use it as defined in TS 23.501 [7] and TS 23.502 [13].

The S-NG-RAN node shall report to the M-NG-RAN node, in the S-NODE ADDITION REQUEST ACKNOWLEDGE message, the result for all the requested PDU session resources in the following way:

- A list of PDU session resources which are successfully established shall be included in the *PDU Session Resources Admitted To Be Added List* IE.

- A list of PDU session resources which failed to be established shall be included in the *PDU Session Resources Not Admitted List* IE.

Upon reception of the S-NODE ADDITION REQUEST ACKNOWLEDGE message the M-NG-RAN node shall stop the timer TXnDCprep.

If the S-NODE ADDITION REQUEST ACKNOWLEDGE message contains the *MR-DC Resource Coordination Information* IE, the M-NG-RAN node may use it for the purpose of resource coordination with the S-NG-RAN node. The M-NG-RAN node shall consider the value of the received *UL Coordination Information* IE valid until reception of a new update of the IE for the same UE. The M-NG-RAN node shall consider the value of the received *DL Coordination Information* IE valid until reception of a new update of the IE for the same UE. If the *E-UTRA Coordination Assistance Information* IE or the *NR Coordination Assistance Information* IE is contained in the *MR-DC Resource Coordination Information* IE, the M-NG-RAN node shall, if supported, use the information to determine further coordination of resource utilisation between the M-NG-RAN node and the S-NG-RAN node.

The S-NG-RAN node may include for each bearer in the *DRBs To Be Setup List* IE in the S-NODE ADDITION REQUEST ACKNOWLEDGE message the *PDCP SN Length* IE to indicate the PDCP SN length for that DRB.

If the *S-NG-RAN node UE XnAP ID* IE is contained in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall, if supported, store this information and use it as defined in TS 37.340 [8].

If the S-NODE ADDITION REQUEST message contains the *PDCP SN Length* IE, the S-NG-RAN node shall, if supported, store this information and use it for lower layer configuration of the concerned MN terminated bearer.

If the S-NODE ADDITION REQUEST message contains the *SN Addition Trigger Indication* IE, the S-NG-RAN node shall include the *RRC config indication* IE in the S-NODE ADDITION REQUEST ACKNOWLEDGE message to inform the M-NG-RAN node if the S-NG-RAN node applied full or delta configuration, as specified in TS 37.340 [8].

If the S-NODE ADDITION REQUEST message contains the *S-NG-RAN node Maximum Integrity Protected Data Rate* *Uplink* IE or the *S-NG-RAN node Maximum Integrity Protected Data Rate Downlink* IE, the S-NG-RAN node shall use the received information when enforcing the maximum integrity protected data rate for the UE.

If the *Security Indication* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDITION REQUEST message, the behaviour of the S-NG-RAN node shall be the same as specified for the same IE in the *PDU Session Resources To Be Setup List* IE in the Handover Preparation procedure, for the concerned PDU session, and the S-NG-RAN node shall include the *Security Result* IE in the *PDU Session Resource Setup Response Info – SN terminated* IE.

If the *Security Result* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDITION REQUEST message, the S-NG-RAN node may take the information into account when deciding whether to perform user plane integrity protection or ciphering for the DRBs that it establishes for the concerned PDU session, except if the *Split Session Indicator* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE and set to "split", in which case it shall perform user plane integrity protection or ciphering according to the information in the *Security Result* IE*.* If the S-NG-RAN node is an ng-eNB, it shall reject all PDU sessions for which the *Integrity Protection Indication* IE is set to "required" as specified in TS 33.501 [28]. If either the S-NG-RAN node or the M-NG-RAN node is an ng-eNB, the S-NG-RAN node shall behave according to clause 6.10.4 of TS 33.501 [28] for PDU sessions for which the *Integrity Protection Indication* IE is set to "preferred".

The S-NG-RAN node may include the *Location Information at S-NODE* IE in the S-NODE ADDITION REQUEST ACKNOWLEDGE message, if respective information is available at the S-NG-RAN node.

If the *Location Information at S-NODE Reporting* IE set to "pscell" is included in the S-NODE ADDITION REQUEST, the S-NG-RAN node shall, start providing information about the current location of the UE. If the *Location Information at S-NODE* IE is included in the S-NODE ADDITION REQUEST ACKNOWLEDGE, the M-NG-RAN node shall store the included information so that it may be transferred towards the AMF.

If the *Default DRB Allowed* IE is included in the *PDU Session Resource Setup Info – SN terminated* IE of the S-NODE ADDITION REQUEST message and set to "true", the S-NG-RAN node may configure the default DRB for the PDU session.

If the S-NODE ADDITION REQUEST ACKNOWLEDGE message includes the *DRB IDs taken into use* IE, the M-NG-RAN node, if applicable, shall act as specified in TS 37.340 [8].

If *Trace Activation* IE has previously been received for this UE, it shall be included in the S-NODE ADDITION REQUEST message. If the *Trace Activation* IE is included in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall, if supported, initiate the requested trace function as described in TS 32.422 [23].

If the *Requested Fast MCG recovery via SRB3* IE set to "true" is included in the S-NODE ADDITION REQUEST message and the S-NG-RAN node decides to configure fast MCG link recovery via SRB3 as specified in TS 37.340 [8], the S-NG-RAN shall, if supported, include the *Available fast MCG recovery via SRB3* IE set to "true" in the S-NODE ADDITION REQUEST ACKNOWLEDGE message.

If the *QoS Monitoring Request* IE is included in the *QoS Flow Level QoS Parameters* IE for a QoS flow contained in the *DRBs To Be Setup List* IE of the *PDU Session Resource Setup Info – MN terminated* IE, the S-NG-RAN node shall, if supported, use it to configure lower layers for the purpose of delay measurement and QoS monitoring as specified in TS 23.501 [7]. If the *QoS Monitoring Reporting Frequency* IE is included in the *QoS Flow Level QoS Parameters* IE for a QoS flow contained in the *DRBs To Be Setup List* IE of the *PDU Session Resource Setup Info – MN terminated* IE, the S-NG-RAN node shall, if supported, use it for RAN part delay reporting.

For each QoS flow which has been successfully established in the S-NG-RAN node, if the *QoS Monitoring Request* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the *PDU Session Resource Setup Info – SN terminated* IE, the S-NG-RAN node shall store this information, and, if supported, perform delay measurement and QoS monitoring as specified in TS 23.501 [7]. If the *QoS Monitoring Reporting Frequency* IE was included in the *QoS Flow Level QoS Parameters* IE contained in the *PDU Session Resource Setup Info – SN terminated* IE, the S-NG-RAN node shall store this information, and, if supported, use it for RAN part delay reporting. In case such a QoS flow is included in the *DRBs To Be Setup List* IE of the *PDU Session Resource Setup Response Info – SN terminated* IE, the M-NG-RAN node shall, if supported, use it to configure lower layers for the purpose of delay measurement and QoS monitoring. If the *QoS Monitoring Reporting Frequency* IE is included in the *DRBs To Be Setup List* IE of the *PDU Session Resource Setup Response Info – SN terminated* IE, the M-NG-RAN node shall, if supported, use it for RAN part delay reporting.

For each DRB configured as MN-terminated split bearer/SCG bearer, if the *QoS Mapping Information* IE is included in the *DRBs Admitted List* IE in the *PDU Session Resource Setup Response Info – MN terminated* IE of the S-NODE ADDITION REQUEST ACKNOWLEDGE message, the M-NG-RAN node shall, if supported, use it to set DSCP and/or flow label fields for the downlink IP packets which are transmitted from M-NG-RAN node to S-NG-RAN node through the GTP tunnels indicated by the *UP Transport Layer Information* IE.

If the *S-NG-RAN node UE Slice Maximum Bit Rate* IE for a specific S-NSSAI is included in the S-NODE ADDITION REQUEST message, the S-NG-RAN node shall:

- replace the previously provided S-NG-RAN node UE Slice Maximum Bit Rate by the received S-NG-RAN node UE Slice Maximum Bit Rate for the specific S-NSSAI for the UE;

- use the received S-NG-RAN node UE Slice Maximum Bit Rate for all PDU sessions associated with the S-NSSAI for the concerned UE as defined in TS 23.501 [7].

*<Next change>*

8.3.3 M-NG-RAN node initiated S-NG-RAN node Modification Preparation

8.3.3.1 General

This procedure is used to enable an M-NG-RAN node to request an S-NG-RAN node to either modify the UE context at the S-NG-RAN node or to query the current SCG configuration for supporting delta signalling in M-NG-RAN node initiated S-NG-RAN node change, or to provide the S-RLF-related information to the S-NG-RAN node.

The procedure uses UE-associated signalling.

8.3.3.2 Successful Operation



**Figure 8.3.3.2-1: M-NG-RAN node initiated S-NG-RAN node Modification Preparation, successful operation**

The M-NG-RAN node initiates the procedure by sending the S-NODE MODIFICATION REQUEST message to the S-NG-RAN node.

When the M-NG-RAN node sends the S-NODE MODIFICATION REQUEST message, it shall start the timer TXnDCprep.

The S-NODE MODIFICATION REQUEST message may contain

- within the *UE Context Information* IE;

- PDU session resources to be added within the *PDU Session Resources To Be Added Item* IE;

- PDU session resources to be modified within the *PDU Session Resources To Be Modified Item* IE;

- PDU session resources to be released within the *PDU Session Resources To Be Released Item* IE;

- the *S-NG-RAN node Security Key* IE;

- the *S-NG-RAN node UE Aggregate Maximum Bit Rate* IE;

- the *M-NG-RAN node to S-NG-RAN node Container* IE;

- the *PDCP Change Indication* IE;

- the *SCG Configuration Query* IE;

- the *Requested split SRBs IE*;

- the *Requested split SRBs release* IE;

- the *Requested fast MCG recovery via SRB3 IE*;

- the *Requested fast MCG recovery via SRB3 Release* IE;

- the *Additional DRB IDs* IE;

- the *MR-DC Resource Coordination Information* IE.

If the S-NODE MODIFICATION REQUEST message contains the *Selected PLMN* IE, the S-NG-RAN node may use it for RRM purposes.

If the S-NODE MODIFICATION REQUEST message contains the *Mobility Restriction List* IE, the S-NG-RAN node shall

- replace the previously provided Mobility Restriction List by the received Mobility Restriction List in the UE context;

- use this information to select an appropriate SCG.

If the *S-NG-RAN node UE Aggregate Maximum Bit Rate* IE is included in the S-NODE MODIFICATION REQUEST message, the S-NG-RAN node shall:

- replace the previously provided S-NG-RAN node UE Aggregate Maximum Bit Rate by the received S-NG-RAN node UE Aggregate Maximum Bit Rate in the UE context;

- use the received S-NG-RAN node UE Aggregate Maximum Bit Rate for Non-GBR Bearers for the concerned UE as defined in TS 37.340 [8].

If the *S-NG-RAN node UE Slice Maximum Bit Rate* IE for a specific S-NSSAI is included in the S-NODE MODIFICATION REQUEST message, the S-NG-RAN node shall:

- replace the previously provided S-NG-RAN node UE Slice Maximum Bit Rate by the received S-NG-RAN node UE Slice Maximum Bit Rate for the specific S-NSSAI for the UE;

- use the received S-NG-RAN node UE Slice Maximum Bit Rate for all PDU sessions associated with the S-NSSAI for the UE as defined in TS 23.501 [7].

*<Next change>*

9.1.1.1 HANDOVER REQUEST

This message is sent by the source NG-RAN node to the target NG-RAN node to request the preparation of resources for a handover.

Direction: source NG-RAN node → target NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| Source NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the source NG-RAN node | YES | reject |
| Cause | M |  | 9.2.3.2 |  | YES | reject |
| Target Cell Global ID | M |  | 9.2.3.25 | Includes either an E-UTRA CGI or an NR CGI | YES | reject |
| GUAMI | M |  | 9.2.3.24 |  | YES | reject |
| **UE Context Information** |  | *1* |  |  | YES | reject |
| >NG-C UE associated Signalling reference | M |  | AMF UE NGAP ID  9.2.3.26 | Allocated at the AMF on the source NG-C connection. | – |  |
| >Signalling TNL association address at source NG-C side | M |  | CP Transport Layer Information  9.2.3.31 | This IE indicates the AMF’s IP address of the SCTP association used at the source NG-C interface instance.  Note: If no UE TNLA binding exists at the source NG-RAN node, the source NG-RAN node indicates the TNL association address it would have selected if it would have had to create a UE TNLA binding. | – |  |
| >UE Security Capabilities | M |  | 9.2.3.49 |  | – |  |
| >AS Security Information | M |  | 9.2.3.50 |  | – |  |
| >Index to RAT/Frequency Selection Priority | O |  | 9.2.3.23 |  | – |  |
| >UE Aggregate Maximum Bit Rate | M |  | 9.2.3.17 |  | – |  |
| >PDU Session Resources To Be Setup List |  | *1* | 9.2.1.1 | Similar to NG-C signalling, containing UL tunnel information per PDU Session Resource;  and in addition, the source side QoS flow ⇔ DRB mapping | – |  |
| >RRC Context | M |  | OCTET STRING | Either includes the *HandoverPreparationInformation* message as defined in subclause 10.2.2. of TS 36.331 [14], or the *HandoverPreparationInformation-NB* message as defined in subclause 10.6.2 of TS 36.331 [14], if the target NG-RAN node is an ng-eNB,  or the *HandoverPreparationInformation* message as defined in subclause 11.2.2 of TS 38.331 [10], if the target NG-RAN node is a gNB. | – |  |
| >Location Reporting Information | O |  | 9.2.3.47 | Includes the necessary parameters for location reporting. | – |  |
| >Mobility Restriction List | O |  | 9.2.3.53 |  | – |  |
| >ManagementBasedMDT PLMN List | O |  | MDT PLMN List  9.2.3.133 |  | YES | ignore |
| >5GC Mobility Restriction List Container | O |  | 9.2.3.100 |  | YES | ignore |
| >NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.107 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| >LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.108 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| >UE Radio Capability ID | O |  | 9.2.3.138 |  | YES | reject |
| >UE Slice Maximum Bit Rate List | O |  | 9.2.3.x |  | YES | ignore |
| Trace Activation | O |  | 9.2.3.55 |  | YES | ignore |
| Masked IMEISV | O |  | 9.2.3.32 |  | YES | ignore |
| UE History Information | M |  | 9.2.3.64 |  | YES | ignore |
| **UE Context Reference at the S-NG-RAN node** | O |  |  |  | YES | ignore |
| >Global NG-RAN Node ID | M |  | 9.2.2.3 |  | – |  |
| >S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 |  | – |  |
| **Conditional Handover Information Request** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, …) |  | – |  |
| >Target NG-RAN node UE XnAP ID | C-ifCHOmod |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the target NG-RAN node | – |  |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | – |  |
| NR V2X Services Authorized | O |  | 9.2.3.105 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.2.3.106 |  | YES | ignore |
| PC5 QoS Parameters | O |  | 9.2.3.109 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| Mobility Information | O |  | BIT STRING (SIZE (32)) | Information related to the handover; the source NG-RAN node provides it in order to enable later analysis of the conditions that led to a wrong HO. | YES | ignore |
| UE History Information from the UE | O |  | 9.2.3.110 |  | YES | ignore |
| IAB Node Indication | O |  | ENUMERATED (true, ...) |  | YES | reject |

*<Next change>*

9.1.2.1 S-NODE ADDITION REQUEST

This message is sent by the M-NG-RAN node to the S-NG-RAN node to request the preparation of resources for dual connectivity operation for a specific UE.

Direction: M-NG-RAN node → S-NG-RAN node.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the M-NG-RAN node | YES | reject |
| UE Security Capabilities | M |  | 9.2.3.49 |  | YES | reject |
| S-NG-RAN node Security Key | M |  | 9.2.3.51 |  | YES | reject |
| S-NG-RAN node UE Aggregate Maximum Bit Rate | M |  | UE Aggregate Maximum Bit Rate  9.2.3.17 | The UE Aggregate Maximum Bit Rate is split into M-NG-RAN node UE Aggregate Maximum Bit Rate and S-NG-RAN node UE Aggregate Maximum Bit Rate which are enforced by M-NG-RAN node and S-NG-RAN node respectively. | YES | reject |
| Selected PLMN | O |  | PLMN Identity  9.2.2.4 | The selected PLMN of the SCG in the S-NG-RAN node. | YES | ignore |
| Mobility Restriction List | O |  | 9.2.3.53 |  | YES | ignore |
| Index to RAT/Frequency Selection Priority | O |  | 9.2.3.23 |  | YES | reject |
| **PDU Session Resources To Be Added List** |  | *1* |  |  | YES | reject |
| **>PDU Session Resources To Be Added Item** |  | *1 .. <maxnoofPDUSessions>* |  | NOTE: If neither the  *PDU Session Resource Setup Info – SN terminated* IE  nor the  *PDU Session Resource Setup Info – MN terminated* IE is present in a *PDU Session Resources To Be Added Item* IE, abnormal conditions as specified in clause 8.3.1.4 apply. | – |  |
| >>PDU Session ID | M |  | 9.2.3.18 |  | – |  |
| >>S-NSSAI | M |  | 9.2.3.21 |  | – |  |
| >>S-NG-RAN node PDU Session Aggregate Maximum Bit Rate | O |  | PDU Session Aggregate Maximum Bit Rate 9.2.3.69 |  | – |  |
| >>PDU Session Resource Setup Info – SN terminated | O |  | 9.2.1.5 |  | – |  |
| >>PDU Session Resource Setup Info – MN terminated | O |  | 9.2.1.7 |  | – |  |
| M-NG-RAN node to S-NG-RAN node Container | M |  | OCTET STRING | Includes the *CG-ConfigInfo* message as defined in subclause 11.2.2 of TS 38.331 [10] | YES | reject |
| S-NG-RAN node UE XnAP ID | O |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the S-NG-RAN node | YES | reject |
| Expected UE Behaviour | O |  | 9.2.3.81 |  | YES | ignore |
| Requested Split SRBs | O |  | ENUMERATED (srb1, srb2, srb1&2, ...) | Indicates that resources for Split SRBs are requested. | YES | reject |
| PCell ID | O |  | Global NG-RAN Cell Identity  9.2.2.27 |  | YES | reject |
| Desired Activity Notification Level | O |  | 9.2.3.77 |  | YES | ignore |
| Available DRB IDs | C-ifSNterminated |  | DRB List  9.2.1.29 | Indicates the list of DRB IDs that the S-NG-RAN node may use for SN-terminated bearers. | YES | reject |
| S-NG-RAN node Maximum Integrity Protected Data Rate Uplink | O |  | Bit Rate  9.2.3.4 | The S-NG-RAN node Maximum Integrity Protected Data Rate Uplink is a portion of the UE’s Maximum Integrity Protected Data Rate in the Uplink, which is enforced by the S-NG-RAN node for the UE’s SN terminated PDU sessions. If the *S-NG-RAN node Maximum Integrity Protected Data Rate Downlink* IE is not present, this IE applies to both UL and DL. | YES | reject |
| S-NG-RAN node Maximum Integrity Protected Data Rate Downlink | O |  | Bit Rate  9.2.3.4 | The S-NG-RAN node Maximum Integrity Protected Data Rate Downlink is a portion of the UE’s Maximum Integrity Protected Data Rate in the Downlink, which is enforced by the S-NG-RAN node for the UE’s SN terminated PDU sessions. | YES | reject |
| Location Information at S-NODE reporting | O |  | ENUMERATED (pscell, ...) | Indicates that the user’s Location Information at S-NODE is to be provided. | YES | ignore |
| MR-DC Resource Coordination Information | O |  | 9.2.2.33 | Information used to coordinate resource utilisation between M-NG-RAN node and S-NG-RAN node. | YES | ignore |
| Masked IMEISV | O |  | 9.2.3.32 |  | YES | ignore |
| NE-DC TDM Pattern | O |  | 9.2.2.38 |  | YES | ignore |
| SN Addition Trigger Indication | O |  | ENUMERATED (SN change, inter-MN HO, intra-MN HO, ...) | This IE indicates the trigger for S-NG-RAN node Addition Preparation procedure | YES | reject |
| Trace Activation | O |  | 9.2.3.55 |  | YES | ignore |
| Requested Fast MCG recovery via SRB3 | O |  | ENUMERATED (true, ...) | Indicates that the resources for fast MCG recovery via SRB3 are requested. | YES | ignore |
| UE Radio Capability ID | O |  | 9.2.3.138 |  | YES | reject |
| S-NG-RAN node UE Slice Maximum Bit Rate | O |  | Slice Maximum Bit Rate  9.2.3.x | The UE Slice Maximum Bit Rate is split into M-NG-RAN node UE Slice Maximum Bit Rate and UE S-NG-RAN node Slice Maximum Bit Rate which are enforced by M-NG-RAN node and S-NG-RAN node respectively. | YES | Ignore |

*<Next change>*

9.1.2.5 S-NODE MODIFICATION REQUEST

This message is sent by the M-NG-RAN node to the S-NG-RAN node to either request the preparation to modify S-NG-RAN node resources for a specific UE, or to query for the current SCG configuration, or to provide the S-RLF-related information to the S-NG-RAN node.

Direction: M-NG-RAN node → S-NG-RAN node.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | | **Criticality** | **Assigned Criticality** |
| Message Type | M |  | 9.2.3.1 |  | | YES | reject |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID 9.2.3.16 | Allocated at the M-NG-RAN node | | YES | reject |
| S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the S-NG-RAN node | | YES | reject |
| Cause | M |  | 9.2.3.2 |  | | YES | ignore |
| PDCP Change Indication | O |  | 9.2.3.74 |  | | YES | ignore |
| Selected PLMN | O |  | PLMN Identity  9.2.2.4 | The selected PLMN of the SCG in the S-NG-RAN node. | | YES | ignore |
| Mobility Restriction List | O |  | 9.2.3.53 |  | | YES | ignore |
| SCG Configuration Query | O |  | 9.2.3.27 |  | | YES | ignore |
| **UE Context Information** |  | *0..1* |  |  | | YES | reject |
| >UE Security Capabilities | O |  | 9.2.3.49 |  | | – |  |
| >S-NG-RAN node Security Key | O |  | 9.2.3.51 |  | | – |  |
| >S-NG-RAN node UE Aggregate Maximum Bit Rate | O |  | UE Aggregate Maximum Bit Rate  9.2.3.17 |  | | – |  |
| >Index to RAT/Frequency Selection Priority | O |  | 9.2.3.23 |  | | – |  |
| >Lower Layer presence status change | O |  | 9.2.3.60 |  | | – |  |
| **>PDU Session Resources To Be Added List** |  | *0..1* |  |  | | – |  |
| **>>PDU Session Resources To Be Added Item** |  | *1 .. <maxnoofPDUSessions>* |  | NOTE: If neither the  *PDU Session Resource Setup Info – SN terminated* IE  nor the  *PDU Session Resource Setup Info – MN terminated* IE is present in a *PDU Session Resources To Be Added Item* IE, abnormal conditions as specified in clause 8.3.3.4 apply. | | – |  |
| >>>PDU Session ID | M |  | 9.2.3.18 |  | | – |  |
| >>>S-NSSAI | M |  | 9.2.3.21 |  | | – |  |
| >>>S-NG-RAN node PDU Session Aggregate Maximum Bit Rate | O |  | PDU Session Aggregate Maximum Bit Rate  9.2.3.69 |  | | – |  |
| >>>PDU Session Resource Setup Info – SN terminated | O |  | 9.2.1.5 |  | | – |  |
| >>>PDU Session Resource Setup Info – MN terminated | O |  | 9.2.1.7 |  | | – |  |
| >>>PDU Session Expected UE Activity Behaviour | O |  | Expected UE Activity Behaviour  9.2.3.82 | Expected UE Activity Behaviour for the PDU Session. | | YES | ignore |
| **>PDU Session Resources To Be Modified List** |  | *0..1* |  |  | | – |  |
| **>>PDU Session Resources To Be Modified Item** |  | *1 .. <maxnoofPDUSessions>* |  | NOTE: If neither the  *PDU Session Resource Modification Info – SN terminated* IE  nor the  *PDU Session Resource Modification Info – MN terminated* IE is present in a *PDU Session Resources To Be Modified Item* IE, abnormal conditions as specified in clause 8.3.3.4 apply. | | – |  |
| >>>PDU Session ID | M |  | 9.2.3.18 |  | | – |  |
| >>>S-NG-RAN node PDU Session Aggregate Maximum Bit Rate | O |  | PDU Session Aggregate Maximum Bit Rate  9.2.3.69 |  | | – |  |
| >>>PDU Session Resource Modification Info – SN terminated | O |  | 9.2.1.9 |  | | – |  |
| >>>PDU Session Resource Modification Info – MN terminated | O |  | 9.2.1.11 |  | | – |  |
| >>>S-NSSAI | O |  | 9.2.3.21 |  | | YES | reject |
| >>>PDU Session Expected UE Activity Behaviour | O |  | Expected UE Activity Behaviour  9.2.3.82 | Expected UE Activity Behaviour for the PDU Session. | | YES | ignore |
| >PDU Session Resources To Be Released List | O |  | PDU session List with Cause  9.2.1.26 |  | | – |  |
| M-NG-RAN node to S-NG-RAN node Container | O |  | OCTET STRING | Includes the *CG-ConfigInfo* message as defined in subclause 11.2.2. of TS 38.331 [10]. | | YES | ignore |
| Requested Split SRBs | O |  | ENUMERATED (srb1, srb2, srb1&2, ...) | Indicates that resources for Split SRBs are requested. | | YES | ignore |
| Requested Split SRBs release | O |  | ENUMERATED (srb1, srb2, srb1&2, ...) | Indicates that resources for Split SRBs are requested to be released. | | YES | ignore |
| Desired Activity Notification Level | O |  | 9.2.3.77 | |  | YES | ignore |
| Additional DRB IDs | O |  | DRB List  9.2.1.29 | | Indicates additional list of DRB IDs that the S-NG-RAN node may use for SN-terminated bearers. | YES | reject |
| S-NG-RAN node Maximum Integrity Protected Data Rate Uplink | O |  | Bit Rate  9.2.3.4 | | The S-NG-RAN node Maximum Integrity Protected Data Rate Uplink is a portion of the UE’s Maximum Integrity Protected Data Rate in the Uplink, which is enforced by the S-NG-RAN node for the UE’s SN terminated PDU sessions. If the *S-NG-RAN node Maximum Integrity Protected Data Rate Downlink* IE is not present, this IE applies to both UL and DL. | YES | reject |
| S-NG-RAN node Maximum Integrity Protected Data Rate Downlink | O |  | Bit Rate  9.2.3.4 | | The S-NG-RAN node Maximum Integrity Protected Data Rate Downlink is a portion of the UE’s Maximum Integrity Protected Data Rate in the Downlink, which is enforced by the S-NG-RAN node for the UE’s SN terminated PDU sessions. | YES | reject |
| Location Information at S-NODE reporting | O |  | ENUMERATED (pscell, ...) | | Indicates that the user’s Location Information at S-NODE is to be provided. | YES | ignore |
| MR-DC Resource Coordination Information | O |  | 9.2.2.33 | | Information used to coordinate resource utilisation between M-NG-RAN node and S-NG-RAN node. | YES | ignore |
| PCell ID | O |  | Global NG-RAN Cell Identity  9.2.2.27 | |  | YES | reject |
| NE-DC TDM Pattern | O |  | 9.2.2.38 | |  | YES | ignore |
| Requested Fast MCG recovery via SRB3 | O |  | ENUMERATED (true, ...) | | Indicates that the resources for fast MCG recovery via SRB3 are requested. | YES | ignore |
| Requested Fast MCG recovery via SRB3 Release | O |  | ENUMERATED (true, ...) | | Indicates that resources for fast MCG recovery via SRB3 are requested to be released. | YES | ignore |
| SN triggered | O |  | ENUMERATED (TRUE ...) | |  | YES | ignore |
| S-NG-RAN node UE Slice Maximum Bit Rate | O |  | UE Slice Maximum Bit Rate  9.2.3.x | | The UE Slice Maximum Bit Rate is split into M-NG-RAN node UE Slice Maximum Bit Rate and UE S-NG-RAN node Slice Maximum Bit Rate which are enforced by M-NG-RAN node and S-NG-RAN node respectively. | YES | Ignore |

*<Next change>*

9.2.1.13 UE Context Information – Retrieve UE Context Response

This IE contains the UE context information within the RETRIEVE UE CONTEXT RESPONSE message.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| NG-C UE associated Signalling reference | M |  | AMF UE NGAP ID  9.2.3.26 | Allocated at the AMF on the old NG-C connection. | – |  |
| Signalling TNL Association Address at source NG-C side | M |  | CP Transport Layer Information  9.2.3.31 | This IE indicates the AMF’s IP address of the SCTP association used at the source NG-C interface instance.  Note: If no UE TNLA binding exists at the source NG-RAN node, the source NG-RAN node indicates the TNL association address it would have selected if it would have had to create a UE TNLA binding. | – |  |
| UE Security Capabilities | M |  | 9.2.3.49 |  | – |  |
| AS Security Information | M |  | 9.2.3.50 |  | – |  |
| UE Aggregate Maximum Bit Rate | M |  | 9.2.3.17 |  | – |  |
| PDU Session Resources To Be Setup List | M |  | 9.2.1.1 |  | – |  |
| RRC Context | M |  | OCTET STRING | Includes the *HandoverPreparationInformation* message as defined in subclause 11.2.2 of TS 38.331[10] if the old and new serving NG-RAN nodes are gNBs.  Includes either the *HandoverPreparationInformation* message as defined in subclause 10.2.2 of TS 36.331 [14] or the *HandoverPreparationInformation-NB* message as defined in subclause 10.6.2 of TS 36.331 [14], if the old and new serving NG-RAN nodes are ng-eNBs. | – |  |
| Mobility Restriction List | O |  | 9.2.3.53 |  | – |  |
| Index to RAT/Frequency Selection Priority | O |  | 9.2.3.23 |  | – |  |
| 5GC Mobility Restriction List Container | O |  | 9.2.3.100 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.107 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.108 | This IE applies only if the UE is authorized for LTE V2X services. | YES | Ignore |
| UE Radio Capability ID | O |  | 9.2.3.138 |  | YES | reject |
| >UE Slice Maximum Bit Rate List | O |  | 9.2.3.x |  | YES | ignore |

*<Next change>*

9.2.3.x UE Slice Maximum Bit Rate List

The UE Slice Maximum Bit Rate includes a list of UE Slice Maximum Bit Rate, each UE Slice Maximum Bit Rate is applicable for all PDU Sessions associated with a specific S-NSSAI of that UE, which is defined for the Downlink and the Uplink direction and a subscription parameter provided by the AMF to the NG-RAN.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| **UE Slice Maximum Bit Rate** |  | *1..<maxnoofSMBR>* |  |  |
| >S-NSSAI | M |  | 9.3.1.24 |  |
| >UE Slice Maximum Bit Rate Downlink | M |  | Bit Rate 9.2.3.4 | This IE indicates the UE Aggregate Maximum Bit Rate as specified in TS 23.501 [7] in the downlink direction. |
| >UE Slice Maximum Bit Rate Uplink | M |  | Bit Rate 9.2.3.4 | This IE indicates the UE Aggregate Maximum Bit Rate as specified in TS 23.501 [7] in the uplink direction. |

|  |  |
| --- | --- |
| Range bound | Explanation |
| *maxnoofSMBR* | Maximum no. of SLICE MAXIMUM BIT RATE for a UE. Value is 8. |

*<Next change>*

9.3.3 Elementary Procedure Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Elementary Procedure definitions

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-PDU-Descriptions {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IE parameter types from other modules.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

IMPORTS

Criticality,

ProcedureCode

FROM XnAP-CommonDataTypes

HandoverRequest,

HandoverRequestAcknowledge,

HandoverPreparationFailure,

SNStatusTransfer,

UEContextRelease,

HandoverCancel,

NotificationControlIndication,

RANPaging,

RetrieveUEContextRequest,

RetrieveUEContextResponse,

RetrieveUEContextFailure,

XnUAddressIndication,

SecondaryRATDataUsageReport,

SNodeAdditionRequest,

SNodeAdditionRequestAcknowledge,

SNodeAdditionRequestReject,

SNodeReconfigurationComplete,

SNodeModificationRequest,

SNodeModificationRequestAcknowledge,

SNodeModificationRequestReject,

SNodeModificationRequired,

SNodeModificationConfirm,

SNodeModificationRefuse,

SNodeReleaseRequest,

SNodeReleaseRequestAcknowledge,

SNodeReleaseReject,

SNodeReleaseRequired,

SNodeReleaseConfirm,

SNodeCounterCheckRequest,

SNodeChangeRequired,

SNodeChangeConfirm,

SNodeChangeRefuse,

RRCTransfer,

XnRemovalRequest,

XnRemovalResponse,

XnRemovalFailure,

XnSetupRequest,

XnSetupResponse,

XnSetupFailure,

NGRANNodeConfigurationUpdate,

NGRANNodeConfigurationUpdateAcknowledge,

NGRANNodeConfigurationUpdateFailure,

E-UTRA-NR-CellResourceCoordinationRequest,

E-UTRA-NR-CellResourceCoordinationResponse,

ActivityNotification,

CellActivationRequest,

CellActivationResponse,

CellActivationFailure,

ResetRequest,

ResetResponse,

ErrorIndication,

PrivateMessage,

DeactivateTrace,

TraceStart,

HandoverSuccess,

ConditionalHandoverCancel,

EarlyStatusTransfer,

FailureIndication,

HandoverReport,

ResourceStatusRequest,

ResourceStatusResponse,

ResourceStatusFailure,

ResourceStatusUpdate,

MobilityChangeRequest,

MobilityChangeAcknowledge,

MobilityChangeFailure,

AccessAndMobilityIndication

FROM XnAP-PDU-Contents

id-handoverPreparation,

id-sNStatusTransfer,

id-handoverCancel,

id-notificationControl,

id-retrieveUEContext,

id-rANPaging,

id-xnUAddressIndication,

id-uEContextRelease,

id-secondaryRATDataUsageReport,

id-sNGRANnodeAdditionPreparation,

id-sNGRANnodeReconfigurationCompletion,

id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation,

id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation,

id-mNGRANnodeinitiatedSNGRANnodeRelease,

id-sNGRANnodeinitiatedSNGRANnodeRelease,

id-sNGRANnodeCounterCheck,

id-sNGRANnodeChange,

id-activityNotification,

id-rRCTransfer,

id-xnRemoval,

id-xnSetup,

id-nGRANnodeConfigurationUpdate,

id-e-UTRA-NR-CellResourceCoordination,

id-cellActivation,

id-reset,

id-errorIndication,

id-privateMessage,

id-deactivateTrace,

id-traceStart,

id-handoverSuccess,

id-conditionalHandoverCancel,

id-earlyStatusTransfer,

id-failureIndication,

id-handoverReport,

id-resourceStatusReportingInitiation,

id-resourceStatusReporting,

id-mobilitySettingsChange,

id-accessAndMobilityIndication

FROM XnAP-Constants;

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Interface Elementary Procedure Class

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-ELEMENTARY-PROCEDURE ::= CLASS {

&InitiatingMessage ,

&SuccessfulOutcome OPTIONAL,

&UnsuccessfulOutcome OPTIONAL,

&procedureCode ProcedureCode UNIQUE,

&criticality Criticality DEFAULT ignore

}

WITH SYNTAX {

INITIATING MESSAGE &InitiatingMessage

[SUCCESSFUL OUTCOME &SuccessfulOutcome]

[UNSUCCESSFUL OUTCOME &UnsuccessfulOutcome]

PROCEDURE CODE &procedureCode

[CRITICALITY &criticality]

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Interface PDU Definition

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-PDU ::= CHOICE {

initiatingMessage InitiatingMessage,

successfulOutcome SuccessfulOutcome,

unsuccessfulOutcome UnsuccessfulOutcome,

...

}

InitiatingMessage ::= SEQUENCE {

procedureCode XNAP-ELEMENTARY-PROCEDURE.&procedureCode ({XNAP-ELEMENTARY-PROCEDURES}),

criticality XNAP-ELEMENTARY-PROCEDURE.&criticality ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value XNAP-ELEMENTARY-PROCEDURE.&InitiatingMessage ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

SuccessfulOutcome ::= SEQUENCE {

procedureCode XNAP-ELEMENTARY-PROCEDURE.&procedureCode ({XNAP-ELEMENTARY-PROCEDURES}),

criticality XNAP-ELEMENTARY-PROCEDURE.&criticality ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value XNAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

UnsuccessfulOutcome ::= SEQUENCE {

procedureCode XNAP-ELEMENTARY-PROCEDURE.&procedureCode ({XNAP-ELEMENTARY-PROCEDURES}),

criticality XNAP-ELEMENTARY-PROCEDURE.&criticality ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode}),

value XNAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({XNAP-ELEMENTARY-PROCEDURES}{@procedureCode})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Interface Elementary Procedure List

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-ELEMENTARY-PROCEDURES XNAP-ELEMENTARY-PROCEDURE ::= {

XNAP-ELEMENTARY-PROCEDURES-CLASS-1 |

XNAP-ELEMENTARY-PROCEDURES-CLASS-2 ,

...

}

XNAP-ELEMENTARY-PROCEDURES-CLASS-1 XNAP-ELEMENTARY-PROCEDURE ::= {

handoverPreparation |

retrieveUEContext |

sNGRANnodeAdditionPreparation |

mNGRANnodeinitiatedSNGRANnodeModificationPreparation |

sNGRANnodeinitiatedSNGRANnodeModificationPreparation |

mNGRANnodeinitiatedSNGRANnodeRelease |

sNGRANnodeinitiatedSNGRANnodeRelease |

sNGRANnodeChange |

xnRemoval |

xnSetup |

nGRANnodeConfigurationUpdate |

e-UTRA-NR-CellResourceCoordination |

cellActivation |

reset |

resourceStatusReportingInitiation |

mobilitySettingsChange ,

...

}

XNAP-ELEMENTARY-PROCEDURES-CLASS-2 XNAP-ELEMENTARY-PROCEDURE ::= {

sNStatusTransfer |

handoverCancel |

rANPaging |

xnUAddressIndication |

uEContextRelease |

sNGRANnodeReconfigurationCompletion |

sNGRANnodeCounterCheck |

rRCTransfer |

errorIndication |

privateMessage |

notificationControl |

activityNotification |

secondaryRATDataUsageReport |

deactivateTrace |

traceStart |

handoverSuccess |

conditionalHandoverCancel |

earlyStatusTransfer |

failureIndication |

handoverReport |

resourceStatusReporting |

accessAndMobilityIndication ,

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Interface Elementary Procedures

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

handoverPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverRequest

SUCCESSFUL OUTCOME HandoverRequestAcknowledge

UNSUCCESSFUL OUTCOME HandoverPreparationFailure

PROCEDURE CODE id-handoverPreparation

CRITICALITY reject

}

sNStatusTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNStatusTransfer

PROCEDURE CODE id-sNStatusTransfer

CRITICALITY ignore

}

handoverCancel XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverCancel

PROCEDURE CODE id-handoverCancel

CRITICALITY ignore

}

retrieveUEContext XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RetrieveUEContextRequest

SUCCESSFUL OUTCOME RetrieveUEContextResponse

UNSUCCESSFUL OUTCOME RetrieveUEContextFailure

PROCEDURE CODE id-retrieveUEContext

CRITICALITY reject

}

rANPaging XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RANPaging

PROCEDURE CODE id-rANPaging

CRITICALITY reject

}

xnUAddressIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnUAddressIndication

PROCEDURE CODE id-xnUAddressIndication

CRITICALITY reject

}

uEContextRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE UEContextRelease

PROCEDURE CODE id-uEContextRelease

CRITICALITY reject

}

sNGRANnodeAdditionPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeAdditionRequest

SUCCESSFUL OUTCOME SNodeAdditionRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeAdditionRequestReject

PROCEDURE CODE id-sNGRANnodeAdditionPreparation

CRITICALITY reject

}

sNGRANnodeReconfigurationCompletion XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReconfigurationComplete

PROCEDURE CODE id-sNGRANnodeReconfigurationCompletion

CRITICALITY reject

}

mNGRANnodeinitiatedSNGRANnodeModificationPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeModificationRequest

SUCCESSFUL OUTCOME SNodeModificationRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeModificationRequestReject

PROCEDURE CODE id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation

CRITICALITY reject

}

sNGRANnodeinitiatedSNGRANnodeModificationPreparation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeModificationRequired

SUCCESSFUL OUTCOME SNodeModificationConfirm

UNSUCCESSFUL OUTCOME SNodeModificationRefuse

PROCEDURE CODE id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation

CRITICALITY reject

}

mNGRANnodeinitiatedSNGRANnodeRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReleaseRequest

SUCCESSFUL OUTCOME SNodeReleaseRequestAcknowledge

UNSUCCESSFUL OUTCOME SNodeReleaseReject

PROCEDURE CODE id-mNGRANnodeinitiatedSNGRANnodeRelease

CRITICALITY reject

}

sNGRANnodeinitiatedSNGRANnodeRelease XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeReleaseRequired

SUCCESSFUL OUTCOME SNodeReleaseConfirm

PROCEDURE CODE id-sNGRANnodeinitiatedSNGRANnodeRelease

CRITICALITY reject

}

sNGRANnodeCounterCheck XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeCounterCheckRequest

PROCEDURE CODE id-sNGRANnodeCounterCheck

CRITICALITY reject

}

sNGRANnodeChange XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SNodeChangeRequired

SUCCESSFUL OUTCOME SNodeChangeConfirm

UNSUCCESSFUL OUTCOME SNodeChangeRefuse

PROCEDURE CODE id-sNGRANnodeChange

CRITICALITY reject

}

rRCTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE RRCTransfer

PROCEDURE CODE id-rRCTransfer

CRITICALITY reject

}

xnRemoval XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnRemovalRequest

SUCCESSFUL OUTCOME XnRemovalResponse

UNSUCCESSFUL OUTCOME XnRemovalFailure

PROCEDURE CODE id-xnRemoval

CRITICALITY reject

}

xnSetup XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE XnSetupRequest

SUCCESSFUL OUTCOME XnSetupResponse

UNSUCCESSFUL OUTCOME XnSetupFailure

PROCEDURE CODE id-xnSetup

CRITICALITY reject

}

nGRANnodeConfigurationUpdate XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE NGRANNodeConfigurationUpdate

SUCCESSFUL OUTCOME NGRANNodeConfigurationUpdateAcknowledge

UNSUCCESSFUL OUTCOME NGRANNodeConfigurationUpdateFailure

PROCEDURE CODE id-nGRANnodeConfigurationUpdate

CRITICALITY reject

}

e-UTRA-NR-CellResourceCoordination XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE E-UTRA-NR-CellResourceCoordinationRequest

SUCCESSFUL OUTCOME E-UTRA-NR-CellResourceCoordinationResponse

PROCEDURE CODE id-e-UTRA-NR-CellResourceCoordination

CRITICALITY reject

}

cellActivation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE CellActivationRequest

SUCCESSFUL OUTCOME CellActivationResponse

UNSUCCESSFUL OUTCOME CellActivationFailure

PROCEDURE CODE id-cellActivation

CRITICALITY reject

}

reset XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResetRequest

SUCCESSFUL OUTCOME ResetResponse

PROCEDURE CODE id-reset

CRITICALITY reject

}

errorIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ErrorIndication

PROCEDURE CODE id-errorIndication

CRITICALITY ignore

}

notificationControl XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE NotificationControlIndication

PROCEDURE CODE id-notificationControl

CRITICALITY ignore

}

activityNotification XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ActivityNotification

PROCEDURE CODE id-activityNotification

CRITICALITY ignore

}

privateMessage XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE PrivateMessage

PROCEDURE CODE id-privateMessage

CRITICALITY ignore

}

secondaryRATDataUsageReport XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE SecondaryRATDataUsageReport

PROCEDURE CODE id-secondaryRATDataUsageReport

CRITICALITY reject

}

deactivateTrace XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE DeactivateTrace

PROCEDURE CODE id-deactivateTrace

CRITICALITY ignore

}

traceStart XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE TraceStart

PROCEDURE CODE id-traceStart

CRITICALITY ignore

}

handoverSuccess XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverSuccess

PROCEDURE CODE id-handoverSuccess

CRITICALITY ignore

}

conditionalHandoverCancel XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ConditionalHandoverCancel

PROCEDURE CODE id-conditionalHandoverCancel

CRITICALITY ignore

}

earlyStatusTransfer XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE EarlyStatusTransfer

PROCEDURE CODE id-earlyStatusTransfer

CRITICALITY ignore

}

failureIndication XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE FailureIndication

PROCEDURE CODE id-failureIndication

CRITICALITY ignore

}

handoverReport XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE HandoverReport

PROCEDURE CODE id-handoverReport

CRITICALITY ignore

}

resourceStatusReportingInitiation XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusRequest

SUCCESSFUL OUTCOME ResourceStatusResponse

UNSUCCESSFUL OUTCOME ResourceStatusFailure

PROCEDURE CODE id-resourceStatusReportingInitiation

CRITICALITY reject

}

resourceStatusReporting XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE ResourceStatusUpdate

PROCEDURE CODE id-resourceStatusReporting

CRITICALITY ignore

}

mobilitySettingsChange XNAP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MobilityChangeRequest

SUCCESSFUL OUTCOME MobilityChangeAcknowledge

UNSUCCESSFUL OUTCOME MobilityChangeFailure

PROCEDURE CODE id-mobilitySettingsChange

CRITICALITY reject

}

accessAndMobilityIndication XNAP-ELEMENTARY-PROCEDURE ::={

INITIATING MESSAGE AccessAndMobilityIndication

PROCEDURE CODE id-accessAndMobilityIndication

CRITICALITY ignore

}

END

-- ASN1STOP

9.3.4 PDU Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU definitions for XnAP.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-PDU-Contents {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IE parameter types from other modules.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

IMPORTS

ActivationIDforCellActivation,

AMF-Region-Information,

AMF-UE-NGAP-ID,

AS-SecurityInformation,

AssistanceDataForRANPaging,

BitRate,

Cause,

CellAndCapacityAssistanceInfo-EUTRA,

CellAndCapacityAssistanceInfo-NR,

CellAssistanceInfo-EUTRA,

CellAssistanceInfo-NR,

CHOinformation-Req,

CHOinformation-Ack,

CHO-MRDC-EarlyDataForwarding,

CHO-MRDC-Indicator,

CPTransportLayerInformation,

TNLA-To-Add-List,

TNLA-To-Update-List,

TNLA-To-Remove-List,

TNLA-Setup-List,

TNLA-Failed-To-Setup-List,

CriticalityDiagnostics,

XnUAddressInfoperPDUSession-List,

DAPSResponseInfo-List,

DataTrafficResourceIndication,

DeliveryStatus,

DesiredActNotificationLevel,

DRB-ID,

DRB-List,

DRB-Number,

DRBsSubjectToDLDiscarding-List,

DRBsSubjectToEarlyStatusTransfer-List,

DRBsSubjectToStatusTransfer-List,

DRBToQoSFlowMapping-List,

E-UTRA-CGI,

ExpectedUEActivityBehaviour,

ExpectedUEBehaviour,

ExtendedUEIdentityIndexValue,

FiveGCMobilityRestrictionListContainer,

GlobalCell-ID,

GlobalNG-RANNode-ID,

GlobalNG-RANCell-ID,

GUAMI,

InterfaceInstanceIndication,

I-RNTI,

LocationInformationSNReporting,

LocationReportingInformation,

LowerLayerPresenceStatusChange,

LTEUESidelinkAggregateMaximumBitRate,

LTEV2XServicesAuthorized,

MR-DC-ResourceCoordinationInfo,

ServedCells-E-UTRA,

ServedCells-NR,

ServedCellsToUpdate-E-UTRA,

ServedCellsToUpdate-NR,

MAC-I,

MaskedIMEISV,

MDT-Configuration,

MDTPLMNList,

MobilityRestrictionList,

NG-RAN-Cell-Identity,

NG-RANnodeUEXnAPID,

NR-CGI,

NE-DC-TDM-Pattern,

NRUESidelinkAggregateMaximumBitRate,

NRV2XServicesAuthorized,

PagingDRX,

PagingeDRXInformation,

PagingPriority,

PartialListIndicator,

PLMN-Identity,

PDCPChangeIndication,

PDUSessionAggregateMaximumBitRate,

PDUSession-ID,

PDUSession-List,

PDUSession-List-withCause,

PDUSession-List-withDataForwardingFromTarget,

PDUSession-List-withDataForwardingRequest,

PDUSessionResourcesAdmitted-List,

PDUSessionResourcesNotAdmitted-List,

PDUSessionResourcesToBeSetup-List,

PDUSessionResourceChangeRequiredInfo-SNterminated,

PDUSessionResourceChangeRequiredInfo-MNterminated,

PDUSessionResourceChangeConfirmInfo-SNterminated,

PDUSessionResourceChangeConfirmInfo-MNterminated,

PDUSessionResourceSecondaryRATUsageList,

PDUSessionResourceSetupInfo-SNterminated,

PDUSessionResourceSetupInfo-MNterminated,

PDUSessionResourceSetupResponseInfo-SNterminated,

PDUSessionResourceSetupResponseInfo-MNterminated,

PDUSessionResourceModificationInfo-SNterminated,

PDUSessionResourceModificationInfo-MNterminated,

PDUSessionResourceModificationResponseInfo-SNterminated,

PDUSessionResourceModificationResponseInfo-MNterminated,

PDUSessionResourceModConfirmInfo-SNterminated,

PDUSessionResourceModConfirmInfo-MNterminated,

PDUSessionResourceModRqdInfo-SNterminated,

PDUSessionResourceModRqdInfo-MNterminated,

PDUSessionType,

PC5QoSParameters,

QoSFlowIdentifier,

QoSFlowNotificationControlIndicationInfo,

QoSFlows-List,

RANPagingArea,

ResetRequestTypeInfo,

ResetResponseTypeInfo,

RFSP-Index,

RRCConfigIndication,

RRCResumeCause,

SCGConfigurationQuery,

SecurityIndication,

S-NG-RANnode-SecurityKey,

SpectrumSharingGroupID,

SplitSRBsTypes,

S-NG-RANnode-Addition-Trigger-Ind,

S-NSSAI,

TargetCellList,

TAISupport-List,

Target-CGI,

TimeToWait,

TraceActivation,

UEAggregateMaximumBitRate,

UEContextID,

UEContextInfoRetrUECtxtResp,

UEContextKeptIndicator,

UEHistoryInformation,

UEIdentityIndexValue,

UERadioCapabilityForPaging,

UERadioCapabilityID,

UERANPagingIdentity,

UESecurityCapabilities,

UPTransportLayerInformation,

UserPlaneTrafficActivityReport,

XnBenefitValue,

RANPagingFailure,

TNLConfigurationInfo,

MaximumCellListSize,

MessageOversizeNotification,

NG-RANTraceID,

MobilityInformation,

InitiatingCondition-FailureIndication,

HandoverReportType,

TargetCellinEUTRAN,

C-RNTI,

UERLFReportContainer,

Measurement-ID,

RegistrationRequest,

ReportCharacteristics,

CellToReport,

ReportingPeriodicity,

CellMeasurementResult,

UEHistoryInformationFromTheUE,

MobilityParametersInformation,

MobilityParametersModificationRange,

RACHReportInformation,

IABNodeIndication,

SNTriggered,

SCGIndicator,

UESpecificDRX,

UESliceMaximumBitRateList

FROM XnAP-IEs

PrivateIE-Container{},

ProtocolExtensionContainer{},

ProtocolIE-Container{},

ProtocolIE-ContainerList{},

ProtocolIE-ContainerPair{},

ProtocolIE-ContainerPairList{},

ProtocolIE-Single-Container{},

XNAP-PRIVATE-IES,

XNAP-PROTOCOL-EXTENSION,

XNAP-PROTOCOL-IES,

XNAP-PROTOCOL-IES-PAIR

FROM XnAP-Containers

id-ActivatedServedCells,

id-ActivationIDforCellActivation,

id-AdditionalDRBIDs,

id-AMF-Region-Information,

id-AMF-Region-Information-To-Add,

id-AMF-Region-Information-To-Delete,

id-AssistanceDataForRANPaging,

id-AvailableDRBIDs,

id-Cause,

id-cellAssistanceInfo-EUTRA,

id-cellAssistanceInfo-NR,

id-CellAndCapacityAssistanceInfo-EUTRA,

id-CellAndCapacityAssistanceInfo-NR,

id-ConfigurationUpdateInitiatingNodeChoice,

id-UEContextID,

id-CriticalityDiagnostics,

id-XnUAddressInfoperPDUSession-List,

id-DesiredActNotificationLevel,

id-DRBsSubjectToStatusTransfer-List,

id-ExpectedUEBehaviour,

id-ExtendedUEIdentityIndexValue,

id-FiveGCMobilityRestrictionListContainer,

id-GlobalNG-RAN-node-ID,

id-GUAMI,

id-indexToRatFrequSelectionPriority,

id-List-of-served-cells-E-UTRA,

id-List-of-served-cells-NR,

id-LocationInformationSN,

id-LocationInformationSNReporting,

id-LocationReportingInformation,

id-LTEUESidelinkAggregateMaximumBitRate,

id-LTEV2XServicesAuthorized,

id-MAC-I,

id-MaskedIMEISV,

id-MDT-Configuration,

id-MDTPLMNList,

id-MN-to-SN-Container,

id-MobilityRestrictionList,

id-M-NG-RANnodeUEXnAPID,

id-new-NG-RAN-Cell-Identity,

id-newNG-RANnodeUEXnAPID,

id-NRUESidelinkAggregateMaximumBitRate,

id-NRV2XServicesAuthorized,

id-oldNG-RANnodeUEXnAPID,

id-OldtoNewNG-RANnodeResumeContainer,

id-PagingDRX,

id-PagingeDRXInformation,

id-PagingPriority,

id-PartialListIndicator-EUTRA,

id-PartialListIndicator-NR,

id-PCellID,

id-PDUSessionResourceSecondaryRATUsageList,

id-PDUSessionResourcesActivityNotifyList,

id-PDUSessionResourcesAdmitted-List,

id-PDUSessionResourcesNotAdmitted-List,

id-PDUSessionResourcesNotifyList,

id-PDUSessionToBeAddedAddReq,

id-PDUSessionToBeReleased-RelReqAck,

id-procedureStage,

id-RANPagingArea,

id-requestedSplitSRB,

id-RequiredNumberOfDRBIDs,

id-ResetRequestTypeInfo,

id-ResetResponseTypeInfo,

id-RespondingNodeTypeConfigUpdateAck,

id-RRCResumeCause,

id-selectedPLMN,

id-ServedCellsToActivate,

id-servedCellsToUpdate-E-UTRA,

id-ServedCellsToUpdateInitiatingNodeChoice,

id-servedCellsToUpdate-NR,

id-sourceNG-RANnodeUEXnAPID,

id-SpareDRBIDs,

id-S-NG-RANnodeMaxIPDataRate-UL,

id-S-NG-RANnodeMaxIPDataRate-DL,

id-S-NG-RANnodeUEXnAPID,

id-TAISupport-list,

id-Target2SourceNG-RANnodeTranspContainer,

id-targetCellGlobalID,

id-targetNG-RANnodeUEXnAPID,

id-TimeToWait,

id-TNLA-To-Add-List,

id-TNLA-To-Update-List,

id-TNLA-To-Remove-List,

id-TNLA-Setup-List,

id-TNLA-Failed-To-Setup-List,

id-TraceActivation,

id-UEContextInfoHORequest,

id-UEContextInfoRetrUECtxtResp,

id-UEContextKeptIndicator,

id-UEContextRefAtSN-HORequest,

id-UEHistoryInformation,

id-UEIdentityIndexValue,

id-UERANPagingIdentity,

id-UESecurityCapabilities,

id-UserPlaneTrafficActivityReport,

id-XnRemovalThreshold,

id-PDUSessionAdmittedAddedAddReqAck,

id-PDUSessionNotAdmittedAddReqAck,

id-SN-to-MN-Container,

id-RRCConfigIndication,

id-SplitSRB-RRCTransfer,

id-UEReportRRCTransfer,

id-PDUSessionReleasedList-RelConf,

id-BearersSubjectToCounterCheck,

id-PDUSessionToBeReleasedList-RelRqd,

id-ResponseInfo-ReconfCompl,

id-initiatingNodeType-ResourceCoordRequest,

id-respondingNodeType-ResourceCoordResponse,

id-PDUSessionToBeReleased-RelReq,

id-PDUSession-SNChangeRequired-List,

id-PDUSession-SNChangeConfirm-List,

id-PDCPChangeIndication,

id-PC5QoSParameters,

id-SCGConfigurationQuery,

id-UEContextInfo-SNModRequest,

id-requestedSplitSRBrelease,

id-PDUSessionAdmitted-SNModResponse,

id-PDUSessionNotAdmitted-SNModResponse,

id-admittedSplitSRB,

id-admittedSplitSRBrelease,

id-PDUSessionAdmittedModSNModConfirm,

id-PDUSessionReleasedSNModConfirm,

id-s-ng-RANnode-SecurityKey,

id-PDUSessionToBeModifiedSNModRequired,

id-S-NG-RANnodeUE-AMBR,

id-PDUSessionToBeReleasedSNModRequired,

id-target-S-NG-RANnodeID,

id-S-NSSAI,

id-MR-DC-ResourceCoordinationInfo,

id-RANPagingFailure,

id-UERadioCapabilityForPaging,

id-PDUSessionDataForwarding-SNModResponse,

id-Secondary-MN-Xn-U-TNLInfoatM,

id-NE-DC-TDM-Pattern,

id-InterfaceInstanceIndication,

id-S-NG-RANnode-Addition-Trigger-Ind,

id-SNTriggered,

id-DRBs-transferred-to-MN,

id-TNLConfigurationInfo,

id-MessageOversizeNotification,

id-NG-RANTraceID,

id-FastMCGRecoveryRRCTransfer-SN-to-MN,

id-FastMCGRecoveryRRCTransfer-MN-to-SN,

id-RequestedFastMCGRecoveryViaSRB3,

id-AvailableFastMCGRecoveryViaSRB3,

id-RequestedFastMCGRecoveryViaSRB3Release,

id-ReleaseFastMCGRecoveryViaSRB3,

id-CHOinformation-Req,

id-CHOinformation-Ack,

id-targetCellsToCancel,

id-requestedTargetCellGlobalID,

id-DAPSResponseInfo-List,

id-CHO-MRDC-EarlyDataForwarding,

id-CHO-MRDC-Indicator,

id-MobilityInformation,

id-InitiatingCondition-FailureIndication,

id-UEHistoryInformationFromTheUE,

id-HandoverReportType,

id-HandoverCause,

id-SourceCellCGI,

id-TargetCellCGI,

id-ReEstablishmentCellCGI,

id-TargetCellinEUTRAN,

id-SourceCellCRNTI,

id-UERLFReportContainer,

id-NGRAN-Node1-Measurement-ID,

id-NGRAN-Node2-Measurement-ID,

id-RegistrationRequest,

id-ReportCharacteristics,

id-CellToReport,

id-ReportingPeriodicity,

id-CellMeasurementResult,

id-NG-RANnode1CellID,

id-NG-RANnode2CellID,

id-NG-RANnode1MobilityParameters,

id-NG-RANnode2ProposedMobilityParameters,

id-MobilityParametersModificationRange,

id-RACHReportInformation,

id-IABNodeIndication,

id-UERadioCapabilityID,

id-SCGIndicator,

id-UESpecificDRX,

id-PDUSessionExpectedUEActivityBehaviour,

id-UESliceMaximumBitRateList,

id-S-NG-RANnodeUE-Slice-MBR,

maxnoofCellsinNG-RANnode,

maxnoofDRBs,

maxnoofPDUSessions,

maxnoofQoSFlows

FROM XnAP-Constants;

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{HandoverRequest-IEs}},

...

}

HandoverRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY reject TYPE Cause PRESENCE mandatory}|

{ ID id-targetCellGlobalID CRITICALITY reject TYPE Target-CGI PRESENCE mandatory}|

{ ID id-GUAMI CRITICALITY reject TYPE GUAMI PRESENCE mandatory}|

{ ID id-UEContextInfoHORequest CRITICALITY reject TYPE UEContextInfoHORequest PRESENCE mandatory}|

{ ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE optional }|

{ ID id-MaskedIMEISV CRITICALITY ignore TYPE MaskedIMEISV PRESENCE optional }|

{ ID id-UEHistoryInformation CRITICALITY ignore TYPE UEHistoryInformation PRESENCE mandatory}|

{ ID id-UEContextRefAtSN-HORequest CRITICALITY ignore TYPE UEContextRefAtSN-HORequest PRESENCE optional }|

{ ID id-CHOinformation-Req CRITICALITY reject TYPE CHOinformation-Req PRESENCE optional }|

{ ID id-NRV2XServicesAuthorized CRITICALITY ignore TYPE NRV2XServicesAuthorized PRESENCE optional }|

{ ID id-LTEV2XServicesAuthorized CRITICALITY ignore TYPE LTEV2XServicesAuthorized PRESENCE optional }|

{ ID id-PC5QoSParameters CRITICALITY ignore TYPE PC5QoSParameters PRESENCE optional }|

{ ID id-MobilityInformation CRITICALITY ignore TYPE MobilityInformation PRESENCE optional}|

{ ID id-UEHistoryInformationFromTheUE CRITICALITY ignore TYPE UEHistoryInformationFromTheUE PRESENCE optional }|

{ ID id-IABNodeIndication CRITICALITY reject TYPE IABNodeIndication PRESENCE optional},

...

}

UEContextInfoHORequest ::= SEQUENCE {

ng-c-UE-reference AMF-UE-NGAP-ID,

cp-TNL-info-source CPTransportLayerInformation,

ueSecurityCapabilities UESecurityCapabilities,

securityInformation AS-SecurityInformation,

indexToRatFrequencySelectionPriority RFSP-Index OPTIONAL,

ue-AMBR UEAggregateMaximumBitRate,

pduSessionResourcesToBeSetup-List PDUSessionResourcesToBeSetup-List,

rrc-Context OCTET STRING,

locationReportingInformation LocationReportingInformation OPTIONAL,

mrl MobilityRestrictionList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {UEContextInfoHORequest-ExtIEs} } OPTIONAL,

...

}

UEContextInfoHORequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

{ ID id-FiveGCMobilityRestrictionListContainer CRITICALITY ignore EXTENSION FiveGCMobilityRestrictionListContainer PRESENCE optional }|

{ ID id-NRUESidelinkAggregateMaximumBitRate CRITICALITY ignore EXTENSION NRUESidelinkAggregateMaximumBitRate PRESENCE optional }|

{ ID id-LTEUESidelinkAggregateMaximumBitRate CRITICALITY ignore EXTENSION LTEUESidelinkAggregateMaximumBitRate PRESENCE optional }|

{ ID id-MDTPLMNList CRITICALITY ignore EXTENSION MDTPLMNList PRESENCE optional }|

{ ID id-UERadioCapabilityID CRITICALITY reject EXTENSION UERadioCapabilityID PRESENCE optional }|

{ ID id-UESliceMaximumBitRateList CRITICALITY reject EXTENSION UESliceMaximumBitRateList PRESENCE optional },

...

}

UEContextRefAtSN-HORequest ::= SEQUENCE {

globalNG-RANNode-ID GlobalNG-RANNode-ID,

sN-NG-RANnodeUEXnAPID NG-RANnodeUEXnAPID,

iE-Extensions ProtocolExtensionContainer { {UEContextRefAtSN-HORequest-ExtIEs} } OPTIONAL,

...

}

UEContextRefAtSN-HORequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER REQUEST ACKNOWLEDGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverRequestAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{HandoverRequestAcknowledge-IEs}},

...

}

HandoverRequestAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionResourcesAdmitted-List CRITICALITY ignore TYPE PDUSessionResourcesAdmitted-List PRESENCE mandatory}|

{ ID id-PDUSessionResourcesNotAdmitted-List CRITICALITY ignore TYPE PDUSessionResourcesNotAdmitted-List PRESENCE optional }|

{ ID id-Target2SourceNG-RANnodeTranspContainer CRITICALITY ignore TYPE OCTET STRING PRESENCE mandatory}|

{ ID id-UEContextKeptIndicator CRITICALITY ignore TYPE UEContextKeptIndicator PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-DRBs-transferred-to-MN CRITICALITY ignore TYPE DRB-List PRESENCE optional }|

{ ID id-DAPSResponseInfo-List CRITICALITY reject TYPE DAPSResponseInfo-List PRESENCE optional }|

{ ID id-CHOinformation-Ack CRITICALITY reject TYPE CHOinformation-Ack PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER PREPARATION FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverPreparationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{HandoverPreparationFailure-IEs}},

...

}

HandoverPreparationFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-requestedTargetCellGlobalID CRITICALITY reject TYPE Target-CGI PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- SN STATUS TRANSFER

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNStatusTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{SNStatusTransfer-IEs}},

...

}

SNStatusTransfer-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-DRBsSubjectToStatusTransfer-List CRITICALITY ignore TYPE DRBsSubjectToStatusTransfer-List PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- UE CONTEXT RELEASE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

UEContextRelease ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{UEContextRelease-IEs}},

...

}

UEContextRelease-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER CANCEL

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverCancel ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{HandoverCancel-IEs}},

...

}

HandoverCancel-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-targetCellsToCancel CRITICALITY reject TYPE TargetCellList PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER SUCCESS

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverSuccess ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{HandoverSuccess-IEs}},

...

}

HandoverSuccess-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-requestedTargetCellGlobalID CRITICALITY reject TYPE Target-CGI PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- CONDITIONAL HANDOVER CANCEL

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ConditionalHandoverCancel ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ ConditionalHandoverCancel-IEs}},

...

}

ConditionalHandoverCancel-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-targetCellsToCancel CRITICALITY reject TYPE TargetCellList PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- EARLY STATUS TRANSFER

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

EarlyStatusTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ EarlyStatusTransfer-IEs}},

...

}

EarlyStatusTransfer-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-targetNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-procedureStage CRITICALITY reject TYPE ProcedureStageChoice PRESENCE mandatory},

...

}

ProcedureStageChoice ::= CHOICE {

first-dl-count FirstDLCount,

dl-discarding DLDiscarding,

choice-extension ProtocolIE-Single-Container { {ProcedureStageChoice-ExtIEs} }

}

ProcedureStageChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

FirstDLCount ::= SEQUENCE {

dRBsSubjectToEarlyStatusTransfer DRBsSubjectToEarlyStatusTransfer-List,

iE-Extension ProtocolExtensionContainer { {FirstDLCount-ExtIEs} } OPTIONAL,

...

}

FirstDLCount-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DLDiscarding ::= SEQUENCE {

dRBsSubjectToDLDiscarding DRBsSubjectToDLDiscarding-List,

iE-Extension ProtocolExtensionContainer { {DLDiscarding-ExtIEs} } OPTIONAL,

...

}

DLDiscarding-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RAN PAGING

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RANPaging ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{RANPaging-IEs}},

...

}

RANPaging-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-UEIdentityIndexValue CRITICALITY reject TYPE UEIdentityIndexValue PRESENCE mandatory}|

{ ID id-UERANPagingIdentity CRITICALITY ignore TYPE UERANPagingIdentity PRESENCE mandatory}|

{ ID id-PagingDRX CRITICALITY ignore TYPE PagingDRX PRESENCE mandatory}|

{ ID id-RANPagingArea CRITICALITY reject TYPE RANPagingArea PRESENCE mandatory}|

{ ID id-PagingPriority CRITICALITY ignore TYPE PagingPriority PRESENCE optional }|

{ ID id-AssistanceDataForRANPaging CRITICALITY ignore TYPE AssistanceDataForRANPaging PRESENCE optional }|

{ ID id-UERadioCapabilityForPaging CRITICALITY ignore TYPE UERadioCapabilityForPaging PRESENCE optional }|

{ ID id-ExtendedUEIdentityIndexValue CRITICALITY ignore TYPE ExtendedUEIdentityIndexValue PRESENCE optional }|

{ ID id-PagingeDRXInformation CRITICALITY ignore TYPE PagingeDRXInformation PRESENCE optional }|

{ ID id-UESpecificDRX CRITICALITY ignore TYPE UESpecificDRX PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RETRIEVE UE CONTEXT REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RetrieveUEContextRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{RetrieveUEContextRequest-IEs}},

...

}

RetrieveUEContextRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-UEContextID CRITICALITY reject TYPE UEContextID PRESENCE mandatory}|

{ ID id-MAC-I CRITICALITY reject TYPE MAC-I PRESENCE mandatory}|

{ ID id-new-NG-RAN-Cell-Identity CRITICALITY reject TYPE NG-RAN-Cell-Identity PRESENCE mandatory}|

{ ID id-RRCResumeCause CRITICALITY ignore TYPE RRCResumeCause PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RETRIEVE UE CONTEXT RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RetrieveUEContextResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ RetrieveUEContextResponse-IEs}},

...

}

RetrieveUEContextResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-GUAMI CRITICALITY reject TYPE GUAMI PRESENCE mandatory}|

{ ID id-UEContextInfoRetrUECtxtResp CRITICALITY reject TYPE UEContextInfoRetrUECtxtResp PRESENCE mandatory}|

{ ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE optional }|

{ ID id-MaskedIMEISV CRITICALITY ignore TYPE MaskedIMEISV PRESENCE optional }|

{ ID id-LocationReportingInformation CRITICALITY ignore TYPE LocationReportingInformation PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-NRV2XServicesAuthorized CRITICALITY ignore TYPE NRV2XServicesAuthorized PRESENCE optional}|

{ ID id-LTEV2XServicesAuthorized CRITICALITY ignore TYPE LTEV2XServicesAuthorized PRESENCE optional}|

{ ID id-PC5QoSParameters CRITICALITY ignore TYPE PC5QoSParameters PRESENCE optional }|

{ ID id-UEHistoryInformation CRITICALITY ignore TYPE UEHistoryInformation PRESENCE optional}|

{ ID id-UEHistoryInformationFromTheUE CRITICALITY ignore TYPE UEHistoryInformationFromTheUE PRESENCE optional }|

{ ID id-MDTPLMNList CRITICALITY ignore TYPE MDTPLMNList PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RETRIEVE UE CONTEXT FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RetrieveUEContextFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ RetrieveUEContextFailure-IEs}},

...

}

RetrieveUEContextFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-OldtoNewNG-RANnodeResumeContainer CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN-U ADDRESS INDICATION

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnUAddressIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnUAddressIndication-IEs}},

...

}

XnUAddressIndication-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-XnUAddressInfoperPDUSession-List CRITICALITY reject TYPE XnUAddressInfoperPDUSession-List PRESENCE mandatory}|

{ ID id-CHO-MRDC-Indicator CRITICALITY reject TYPE CHO-MRDC-Indicator PRESENCE optional }|

{ ID id-CHO-MRDC-EarlyDataForwarding CRITICALITY ignore TYPE CHO-MRDC-EarlyDataForwarding PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE ADDITION REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeAdditionRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeAdditionRequest-IEs}},

...

}

SNodeAdditionRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-UESecurityCapabilities CRITICALITY reject TYPE UESecurityCapabilities PRESENCE mandatory}|

{ ID id-s-ng-RANnode-SecurityKey CRITICALITY reject TYPE S-NG-RANnode-SecurityKey PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUE-AMBR CRITICALITY reject TYPE UEAggregateMaximumBitRate PRESENCE mandatory}|

{ ID id-selectedPLMN CRITICALITY ignore TYPE PLMN-Identity PRESENCE optional }|

{ ID id-MobilityRestrictionList CRITICALITY ignore TYPE MobilityRestrictionList PRESENCE optional }|

{ ID id-indexToRatFrequSelectionPriority CRITICALITY reject TYPE RFSP-Index PRESENCE optional }|

{ ID id-PDUSessionToBeAddedAddReq CRITICALITY reject TYPE PDUSessionToBeAddedAddReq PRESENCE mandatory}|

{ ID id-MN-to-SN-Container CRITICALITY reject TYPE OCTET STRING PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-ExpectedUEBehaviour CRITICALITY ignore TYPE ExpectedUEBehaviour PRESENCE optional }|

{ ID id-requestedSplitSRB CRITICALITY reject TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-PCellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE optional }|

{ ID id-DesiredActNotificationLevel CRITICALITY ignore TYPE DesiredActNotificationLevel PRESENCE optional }|

{ ID id-AvailableDRBIDs CRITICALITY reject TYPE DRB-List PRESENCE conditional}

-- The IE shall be present if there is at least one PDUSessionResourceSetupInfo-SNterminated included --|

{ ID id-S-NG-RANnodeMaxIPDataRate-UL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-S-NG-RANnodeMaxIPDataRate-DL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-LocationInformationSNReporting CRITICALITY ignore TYPE LocationInformationSNReporting PRESENCE optional}|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-MaskedIMEISV CRITICALITY ignore TYPE MaskedIMEISV PRESENCE optional}|

{ ID id-NE-DC-TDM-Pattern CRITICALITY ignore TYPE NE-DC-TDM-Pattern PRESENCE optional}|

{ ID id-S-NG-RANnode-Addition-Trigger-Ind CRITICALITY reject TYPE S-NG-RANnode-Addition-Trigger-Ind PRESENCE optional}|

{ ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE optional}|

{ ID id-RequestedFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3 PRESENCE optional}|

{ ID id-UERadioCapabilityID CRITICALITY reject TYPE UERadioCapabilityID PRESENCE optional}|

{ ID id-S-NG-RANnodeUE-Slice-MBR CRITICALITY reject TYPE UESliceMaximumBitRateList PRESENCE optional },

...

}

PDUSessionToBeAddedAddReq ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionToBeAddedAddReq-Item

PDUSessionToBeAddedAddReq-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

s-NSSAI S-NSSAI,

sN-PDUSessionAMBR PDUSessionAggregateMaximumBitRate OPTIONAL,

sn-terminated PDUSessionResourceSetupInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceSetupInfo-MNterminated OPTIONAL,

-- NOTE: If neither the PDU Session Resource Setup Info – SN terminated IE

-- nor the *PDU Session Resource Setup Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.1.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionToBeAddedAddReq-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionToBeAddedAddReq-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RequestedFastMCGRecoveryViaSRB3 ::= ENUMERATED {true, ...}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE ADDITION REQUEST ACKNOWLEDGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeAdditionRequestAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeAdditionRequestAcknowledge-IEs}},

...

}

SNodeAdditionRequestAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionAdmittedAddedAddReqAck CRITICALITY ignore TYPE PDUSessionAdmittedAddedAddReqAck PRESENCE mandatory}|

{ ID id-PDUSessionNotAdmittedAddReqAck CRITICALITY ignore TYPE PDUSessionNotAdmittedAddReqAck PRESENCE optional }|

{ ID id-SN-to-MN-Container CRITICALITY reject TYPE OCTET STRING PRESENCE mandatory}|

{ ID id-admittedSplitSRB CRITICALITY reject TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-RRCConfigIndication CRITICALITY reject TYPE RRCConfigIndication PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-LocationInformationSN CRITICALITY ignore TYPE Target-CGI PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-AvailableFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE AvailableFastMCGRecoveryViaSRB3 PRESENCE optional },

...

}

PDUSessionAdmittedAddedAddReqAck ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedAddedAddReqAck-Item

PDUSessionAdmittedAddedAddReqAck-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceSetupResponseInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceSetupResponseInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Setup Response Info – SN terminated* IE

-- nor the *PDU Session Resource Setup Response Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.1.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedAddedAddReqAck-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedAddedAddReqAck-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionNotAdmittedAddReqAck ::= SEQUENCE {

pduSessionResourcesNotAdmitted-SNterminated PDUSessionResourcesNotAdmitted-List OPTIONAL,

pduSessionResourcesNotAdmitted-MNterminated PDUSessionResourcesNotAdmitted-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionNotAdmittedAddReqAck-ExtIEs} } OPTIONAL,

...

}

PDUSessionNotAdmittedAddReqAck-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AvailableFastMCGRecoveryViaSRB3 ::= ENUMERATED {true, ...}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE ADDITION REQUEST REJECT

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeAdditionRequestReject ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeAdditionRequestReject-IEs}},

...

}

SNodeAdditionRequestReject-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE RECONFIGURATION COMPLETE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReconfigurationComplete ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReconfigurationComplete-IEs}},

...

}

SNodeReconfigurationComplete-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-ResponseInfo-ReconfCompl CRITICALITY ignore TYPE ResponseInfo-ReconfCompl PRESENCE mandatory},

...

}

ResponseInfo-ReconfCompl ::= SEQUENCE {

responseType-ReconfComplete ResponseType-ReconfComplete,

iE-Extensions ProtocolExtensionContainer { {ResponseInfo-ReconfCompl-ExtIEs} } OPTIONAL,

...

}

ResponseInfo-ReconfCompl-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResponseType-ReconfComplete ::= CHOICE {

configuration-successfully-applied Configuration-successfully-applied,

configuration-rejected-by-M-NG-RANNode Configuration-rejected-by-M-NG-RANNode,

choice-extension ProtocolIE-Single-Container { {ResponseType-ReconfComplete-ExtIEs} }

}

ResponseType-ReconfComplete-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

Configuration-successfully-applied ::= SEQUENCE {

m-NG-RANNode-to-S-NG-RANNode-Container OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Configuration-successfully-applied-ExtIEs} } OPTIONAL,

...

}

Configuration-successfully-applied-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Configuration-rejected-by-M-NG-RANNode ::= SEQUENCE {

cause Cause,

m-NG-RANNode-to-S-NG-RANNode-Container OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Configuration-rejected-by-M-NG-RANNode-ExtIEs} } OPTIONAL,

...

}

Configuration-rejected-by-M-NG-RANNode-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE MODIFICATION REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationRequest-IEs}},

...

}

SNodeModificationRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-PDCPChangeIndication CRITICALITY ignore TYPE PDCPChangeIndication PRESENCE optional }|

{ ID id-selectedPLMN CRITICALITY ignore TYPE PLMN-Identity PRESENCE optional }|

{ ID id-MobilityRestrictionList CRITICALITY ignore TYPE MobilityRestrictionList PRESENCE optional }|

{ ID id-SCGConfigurationQuery CRITICALITY ignore TYPE SCGConfigurationQuery PRESENCE optional }|

{ ID id-UEContextInfo-SNModRequest CRITICALITY reject TYPE UEContextInfo-SNModRequest PRESENCE optional }|

{ ID id-MN-to-SN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-requestedSplitSRB CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-requestedSplitSRBrelease CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-DesiredActNotificationLevel CRITICALITY ignore TYPE DesiredActNotificationLevel PRESENCE optional }|

{ ID id-AdditionalDRBIDs CRITICALITY reject TYPE DRB-List PRESENCE optional }|

{ ID id-S-NG-RANnodeMaxIPDataRate-UL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-S-NG-RANnodeMaxIPDataRate-DL CRITICALITY reject TYPE BitRate PRESENCE optional }|

{ ID id-LocationInformationSNReporting CRITICALITY ignore TYPE LocationInformationSNReporting PRESENCE optional}|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-PCellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE optional }|

{ ID id-NE-DC-TDM-Pattern CRITICALITY ignore TYPE NE-DC-TDM-Pattern PRESENCE optional}|

{ ID id-RequestedFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-RequestedFastMCGRecoveryViaSRB3Release CRITICALITY ignore TYPE RequestedFastMCGRecoveryViaSRB3Release PRESENCE optional }|

{ ID id-SNTriggered CRITICALITY ignore TYPE SNTriggered PRESENCE optional}|

{ ID id-S-NG-RANnodeUE-Slice-MBR CRITICALITY reject TYPE UESliceMaximumBitRateList PRESENCE optional },

...

}

UEContextInfo-SNModRequest ::= SEQUENCE {

ueSecurityCapabilities UESecurityCapabilities OPTIONAL,

s-ng-RANnode-SecurityKey S-NG-RANnode-SecurityKey OPTIONAL,

s-ng-RANnodeUE-AMBR UEAggregateMaximumBitRate OPTIONAL,

indexToRatFrequencySelectionPriority RFSP-Index OPTIONAL,

lowerLayerPresenceStatusChange LowerLayerPresenceStatusChange OPTIONAL,

pduSessionResourceToBeAdded PDUSessionsToBeAdded-SNModRequest-List OPTIONAL,

pduSessionResourceToBeModified PDUSessionsToBeModified-SNModRequest-List OPTIONAL,

pduSessionResourceToBeReleased PDUSessionsToBeReleased-SNModRequest-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {UEContextInfo-SNModRequest-ExtIEs} } OPTIONAL,

...

}

UEContextInfo-SNModRequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionsToBeAdded-SNModRequest-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionsToBeAdded-SNModRequest-Item

PDUSessionsToBeAdded-SNModRequest-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

s-NSSAI S-NSSAI,

sN-PDUSessionAMBR PDUSessionAggregateMaximumBitRate OPTIONAL,

sn-terminated PDUSessionResourceSetupInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceSetupInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Setup Info – SN terminated* IE

-- nor the *PDU Session Resource Setup Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionsToBeAdded-SNModRequest-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionsToBeAdded-SNModRequest-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-PDUSessionExpectedUEActivityBehaviour CRITICALITY ignore EXTENSION ExpectedUEActivityBehaviour PRESENCE optional},

...

}

PDUSessionsToBeModified-SNModRequest-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionsToBeModified-SNModRequest-Item

PDUSessionsToBeModified-SNModRequest-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sN-PDUSessionAMBR PDUSessionAggregateMaximumBitRate OPTIONAL,

sn-terminated PDUSessionResourceModificationInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceModificationInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Modification Info – SN terminated* IE

-- nor the *PDU Session Resource Modification Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionsToBeModified-SNModRequest-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionsToBeModified-SNModRequest-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-S-NSSAI CRITICALITY reject EXTENSION S-NSSAI PRESENCE optional}|

{ID id-PDUSessionExpectedUEActivityBehaviour CRITICALITY ignore EXTENSION ExpectedUEActivityBehaviour PRESENCE optional},

...

}

PDUSessionsToBeReleased-SNModRequest-List ::= SEQUENCE {

pdu-session-list PDUSession-List-withCause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionsToBeReleased-SNModRequest-List-ExtIEs} } OPTIONAL,

...

}

PDUSessionsToBeReleased-SNModRequest-List-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RequestedFastMCGRecoveryViaSRB3Release ::= ENUMERATED {true, ...}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE MODIFICATION REQUEST ACKNOWLEDGE

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationRequestAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationRequestAcknowledge-IEs}},

...

}

SNodeModificationRequestAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionAdmitted-SNModResponse CRITICALITY ignore TYPE PDUSessionAdmitted-SNModResponse PRESENCE optional }|

{ ID id-PDUSessionNotAdmitted-SNModResponse CRITICALITY ignore TYPE PDUSessionNotAdmitted-SNModResponse PRESENCE optional }|

{ ID id-SN-to-MN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-admittedSplitSRB CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-admittedSplitSRBrelease CRITICALITY ignore TYPE SplitSRBsTypes PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-LocationInformationSN CRITICALITY ignore TYPE Target-CGI PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-PDUSessionDataForwarding-SNModResponse CRITICALITY ignore TYPE PDUSessionDataForwarding-SNModResponse PRESENCE optional }|

{ ID id-RRCConfigIndication CRITICALITY reject TYPE RRCConfigIndication PRESENCE optional }|

{ ID id-AvailableFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE AvailableFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-ReleaseFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE ReleaseFastMCGRecoveryViaSRB3 PRESENCE optional },

...

}

PDUSessionAdmitted-SNModResponse ::= SEQUENCE {

pduSessionResourcesAdmittedToBeAdded PDUSessionAdmittedToBeAddedSNModResponse OPTIONAL,

pduSessionResourcesAdmittedToBeModified PDUSessionAdmittedToBeModifiedSNModResponse OPTIONAL,

pduSessionResourcesAdmittedToBeReleased PDUSessionAdmittedToBeReleasedSNModResponse OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmitted-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmitted-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeAddedSNModResponse ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedToBeAddedSNModResponse-Item

PDUSessionAdmittedToBeAddedSNModResponse-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceSetupResponseInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceSetupResponseInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Setup Response Info – SN terminated* IE

-- nor the *PDU Session Resource Setup Response Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeAddedSNModResponse-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeAddedSNModResponse-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeModifiedSNModResponse::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedToBeModifiedSNModResponse-Item

PDUSessionAdmittedToBeModifiedSNModResponse-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceModificationResponseInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceModificationResponseInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Modification Response Info – SN terminated* IE

-- nor the *PDU Session Resource Modification Response Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.3.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeModifiedSNModResponse-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeModifiedSNModResponse-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAdmittedToBeReleasedSNModResponse ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingRequest OPTIONAL,

mn-terminated PDUSession-List-withCause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeReleasedSNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeReleasedSNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionNotAdmitted-SNModResponse ::= SEQUENCE {

pdu-Session-List PDUSession-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionNotAdmitted-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionNotAdmitted-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionDataForwarding-SNModResponse ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingRequest,

iE-Extensions ProtocolExtensionContainer { {PDUSessionDataForwarding-SNModResponse-ExtIEs} } OPTIONAL,

...

}

PDUSessionDataForwarding-SNModResponse-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ReleaseFastMCGRecoveryViaSRB3 ::= ENUMERATED {true, ...}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE MODIFICATION REQUEST REJECT

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationRequestReject ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationRequestReject-IEs}},

...

}

SNodeModificationRequestReject-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- S-NODE MODIFICATION REQUIRED

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationRequired-IEs}},

...

}

SNodeModificationRequired-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-PDCPChangeIndication CRITICALITY ignore TYPE PDCPChangeIndication PRESENCE optional }|

{ ID id-PDUSessionToBeModifiedSNModRequired CRITICALITY ignore TYPE PDUSessionToBeModifiedSNModRequired PRESENCE optional }|

{ ID id-PDUSessionToBeReleasedSNModRequired CRITICALITY ignore TYPE PDUSessionToBeReleasedSNModRequired PRESENCE optional }|

{ ID id-SN-to-MN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-SpareDRBIDs CRITICALITY ignore TYPE DRB-List PRESENCE optional }|

{ ID id-RequiredNumberOfDRBIDs CRITICALITY ignore TYPE DRB-Number PRESENCE optional }|

{ ID id-LocationInformationSN CRITICALITY ignore TYPE Target-CGI PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional }|

{ ID id-RRCConfigIndication CRITICALITY reject TYPE RRCConfigIndication PRESENCE optional }|

{ ID id-AvailableFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE AvailableFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-ReleaseFastMCGRecoveryViaSRB3 CRITICALITY ignore TYPE ReleaseFastMCGRecoveryViaSRB3 PRESENCE optional }|

{ ID id-SCGIndicator CRITICALITY ignore TYPE SCGIndicator PRESENCE optional },

...

}

PDUSessionToBeModifiedSNModRequired::= SEQUENCE (SIZE (1.. maxnoofPDUSessions)) OF PDUSessionToBeModifiedSNModRequired-Item

PDUSessionToBeModifiedSNModRequired-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceModRqdInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceModRqdInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Modification Required Info – SN terminated* IE

-- nor the *PDU Session Resource Modification Required Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.4.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionToBeModifiedSNModRequired-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionToBeModifiedSNModRequired-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionToBeReleasedSNModRequired ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingRequest OPTIONAL,

mn-terminated PDUSession-List-withCause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionToBeReleasedSNModRequired-ExtIEs} } OPTIONAL,

...

}

PDUSessionToBeReleasedSNModRequired-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE MODIFICATION CONFIRM

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationConfirm-IEs}},

...

}

SNodeModificationConfirm-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionAdmittedModSNModConfirm CRITICALITY ignore TYPE PDUSessionAdmittedModSNModConfirm PRESENCE optional }|

{ ID id-PDUSessionReleasedSNModConfirm CRITICALITY ignore TYPE PDUSessionReleasedSNModConfirm PRESENCE optional }|

{ ID id-MN-to-SN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-AdditionalDRBIDs CRITICALITY reject TYPE DRB-List PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-MR-DC-ResourceCoordinationInfo CRITICALITY ignore TYPE MR-DC-ResourceCoordinationInfo PRESENCE optional },

...

}

PDUSessionAdmittedModSNModConfirm ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionAdmittedModSNModConfirm-Item

PDUSessionAdmittedModSNModConfirm-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceModConfirmInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceModConfirmInfo-MNterminated OPTIONAL,

-- NOTE: If neither the *PDU Session Resource Modification Confirm Info – SN terminated* IE

-- nor the *PDU Session Resource Modification Confirm Info – MN terminated* IE is present,

-- abnormal conditions as specified in clause 8.3.4.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedModSNModConfirm-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedModSNModConfirm-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionReleasedSNModConfirm ::= SEQUENCE {

sn-terminated PDUSession-List-withDataForwardingFromTarget OPTIONAL,

mn-terminated PDUSession-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionAdmittedToBeReleasedSNModConfirm-ExtIEs} } OPTIONAL,

...

}

PDUSessionAdmittedToBeReleasedSNModConfirm-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE MODIFICATION REFUSE

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeModificationRefuse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeModificationRefuse-IEs}},

...

}

SNodeModificationRefuse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-MN-to-SN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE RELEASE REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReleaseRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReleaseRequest-IEs}},

...

}

SNodeReleaseRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-PDUSessionToBeReleased-RelReq CRITICALITY ignore TYPE PDUSession-List-withCause PRESENCE mandatory}|

{ ID id-UEContextKeptIndicator CRITICALITY ignore TYPE UEContextKeptIndicator PRESENCE optional }|

{ ID id-MN-to-SN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional }|

{ ID id-DRBs-transferred-to-MN CRITICALITY ignore TYPE DRB-List PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE RELEASE REQUEST ACKNOWLEDGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReleaseRequestAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReleaseRequestAcknowledge-IEs}},

...

}

SNodeReleaseRequestAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-PDUSessionToBeReleased-RelReqAck CRITICALITY ignore TYPE PDUSessionToBeReleasedList-RelReqAck PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

PDUSessionToBeReleasedList-RelReqAck ::= SEQUENCE {

pduSessionsToBeReleasedList-SNterminated PDUSession-List-withDataForwardingRequest OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionToBeReleasedList-RelReqAck-ExtIEs} } OPTIONAL,

...

}

PDUSessionToBeReleasedList-RelReqAck-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE RELEASE REJECT

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReleaseReject ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReleaseReject-IEs}},

...

}

SNodeReleaseReject-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- S-NODE RELEASE REQUIRED

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReleaseRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReleaseRequired-IEs}},

...

}

SNodeReleaseRequired-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionToBeReleasedList-RelRqd CRITICALITY ignore TYPE PDUSessionToBeReleasedList-RelRqd PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-SN-to-MN-Container CRITICALITY ignore TYPE OCTET STRING PRESENCE optional },

...

}

PDUSessionToBeReleasedList-RelRqd ::= SEQUENCE {

pduSessionsToBeReleasedList-SNterminated PDUSession-List-withDataForwardingRequest OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionToBeReleasedList-RelRqd-ExtIEs} } OPTIONAL,

...

}

PDUSessionToBeReleasedList-RelRqd-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE RELEASE CONFIRM

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeReleaseConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeReleaseConfirm-IEs}},

...

}

SNodeReleaseConfirm-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionReleasedList-RelConf CRITICALITY ignore TYPE PDUSessionReleasedList-RelConf PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

PDUSessionReleasedList-RelConf ::= SEQUENCE {

pduSessionsReleasedList-SNterminated PDUSession-List-withDataForwardingFromTarget OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionReleasedList-RelConf-ExtIEs} } OPTIONAL,

...

}

PDUSessionReleasedList-RelConf-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE COUNTER CHECK REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeCounterCheckRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeCounterCheckRequest-IEs}},

...

}

SNodeCounterCheckRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-BearersSubjectToCounterCheck CRITICALITY ignore TYPE BearersSubjectToCounterCheck-List PRESENCE mandatory},

...

}

BearersSubjectToCounterCheck-List ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF BearersSubjectToCounterCheck-Item

BearersSubjectToCounterCheck-Item ::= SEQUENCE {

drb-ID DRB-ID,

ul-count INTEGER (0.. 4294967295),

dl-count INTEGER (0.. 4294967295),

iE-Extensions ProtocolExtensionContainer { {BearersSubjectToCounterCheck-Item-ExtIEs} } OPTIONAL,

...

}

BearersSubjectToCounterCheck-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- S-NODE CHANGE REQUIRED

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeChangeRequired ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeChangeRequired-IEs}},

...

}

SNodeChangeRequired-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-target-S-NG-RANnodeID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-PDUSession-SNChangeRequired-List CRITICALITY ignore TYPE PDUSession-SNChangeRequired-List PRESENCE optional }|

{ ID id-SN-to-MN-Container CRITICALITY reject TYPE OCTET STRING PRESENCE mandatory},

...

}

PDUSession-SNChangeRequired-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSession-SNChangeRequired-Item

PDUSession-SNChangeRequired-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceChangeRequiredInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceChangeRequiredInfo-MNterminated OPTIONAL,

-- NOTE: If the *PDU Session Resource Change Required Info – SN terminated* IE is not present,

-- abnormal conditions as specified in clause 8.3.5.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSession-SNChangeRequired-Item-ExtIEs} } OPTIONAL,

...

}

PDUSession-SNChangeRequired-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- S-NODE CHANGE CONFIRM

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeChangeConfirm ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeChangeConfirm-IEs}},

...

}

SNodeChangeConfirm-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSession-SNChangeConfirm-List CRITICALITY ignore TYPE PDUSession-SNChangeConfirm-List PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

PDUSession-SNChangeConfirm-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSession-SNChangeConfirm-Item

PDUSession-SNChangeConfirm-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

sn-terminated PDUSessionResourceChangeConfirmInfo-SNterminated OPTIONAL,

mn-terminated PDUSessionResourceChangeConfirmInfo-MNterminated OPTIONAL,

-- NOTE: If the *PDU Session Resource Change Confirm Info – SN terminated* IE is not present,

-- abnormal conditions as specified in clause 8.3.5.4 apply.

iE-Extension ProtocolExtensionContainer { {PDUSession-SNChangeConfirm-Item-ExtIEs} } OPTIONAL,

...

}

PDUSession-SNChangeConfirm-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- S-NODE CHANGE REFUSE

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SNodeChangeRefuse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ SNodeChangeRefuse-IEs}},

...

}

SNodeChangeRefuse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RRC TRANSFER

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RRCTransfer ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ RRCTransfer-IEs}},

...

}

RRCTransfer-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-SplitSRB-RRCTransfer CRITICALITY reject TYPE SplitSRB-RRCTransfer PRESENCE optional }|

{ ID id-UEReportRRCTransfer CRITICALITY reject TYPE UEReportRRCTransfer PRESENCE optional }|

{ ID id-FastMCGRecoveryRRCTransfer-SN-to-MN CRITICALITY ignore TYPE FastMCGRecoveryRRCTransfer PRESENCE optional}|

{ ID id-FastMCGRecoveryRRCTransfer-MN-to-SN CRITICALITY ignore TYPE FastMCGRecoveryRRCTransfer PRESENCE optional},

...

}

SplitSRB-RRCTransfer ::= SEQUENCE {

rrcContainer OCTET STRING OPTIONAL,

srbType ENUMERATED {srb1, srb2, ...},

deliveryStatus DeliveryStatus OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {SplitSRB-RRCTransfer-ExtIEs} } OPTIONAL,

...

}

SplitSRB-RRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UEReportRRCTransfer::= SEQUENCE {

rrcContainer OCTET STRING,

iE-Extensions ProtocolExtensionContainer { {UEReportRRCTransfer-ExtIEs} } OPTIONAL,

...

}

UEReportRRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

FastMCGRecoveryRRCTransfer::= SEQUENCE {

rrcContainer OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { FastMCGRecoveryRRCTransfer-ExtIEs} } OPTIONAL,

...

}

FastMCGRecoveryRRCTransfer-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- NOTIFICATION CONTROL INDICATION

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NotificationControlIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{NotificationControlIndication-IEs}},

...

}

NotificationControlIndication-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionResourcesNotifyList CRITICALITY reject TYPE PDUSessionResourcesNotifyList PRESENCE optional },

...

}

PDUSessionResourcesNotifyList ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourcesNotify-Item

PDUSessionResourcesNotify-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

qosFlowsNotificationContrIndInfo QoSFlowNotificationControlIndicationInfo,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourcesNotify-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesNotify-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- ACTIVITY NOTIFICATION

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ActivityNotification ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ActivityNotification-IEs}},

...

}

ActivityNotification-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-UserPlaneTrafficActivityReport CRITICALITY ignore TYPE UserPlaneTrafficActivityReport PRESENCE optional }|

{ ID id-PDUSessionResourcesActivityNotifyList CRITICALITY ignore TYPE PDUSessionResourcesActivityNotifyList PRESENCE optional }|

{ ID id-RANPagingFailure CRITICALITY ignore TYPE RANPagingFailure PRESENCE optional },

...

}

PDUSessionResourcesActivityNotifyList ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourcesActivityNotify-Item

PDUSessionResourcesActivityNotify-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

pduSessionLevelUPactivityreport UserPlaneTrafficActivityReport OPTIONAL,

qosFlowsActivityNotifyList QoSFlowsActivityNotifyList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourcesActivityNotify-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesActivityNotify-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSFlowsActivityNotifyList ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsActivityNotifyItem

QoSFlowsActivityNotifyItem ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

pduSessionLevelUPactivityreport UserPlaneTrafficActivityReport,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsActivityNotifyItem-ExtIEs} } OPTIONAL,

...

}

QoSFlowsActivityNotifyItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN SETUP REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnSetupRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnSetupRequest-IEs}},

...

}

XnSetupRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE mandatory}|

{ ID id-TAISupport-list CRITICALITY reject TYPE TAISupport-List PRESENCE mandatory}|

{ ID id-AMF-Region-Information CRITICALITY reject TYPE AMF-Region-Information PRESENCE mandatory}|

{ ID id-List-of-served-cells-NR CRITICALITY reject TYPE ServedCells-NR PRESENCE optional }|

{ ID id-List-of-served-cells-E-UTRA CRITICALITY reject TYPE ServedCells-E-UTRA PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-TNLConfigurationInfo CRITICALITY ignore TYPE TNLConfigurationInfo PRESENCE optional}|

{ ID id-PartialListIndicator-NR CRITICALITY ignore TYPE PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-NR CRITICALITY ignore TYPE CellAndCapacityAssistanceInfo-NR PRESENCE optional }|

{ ID id-PartialListIndicator-EUTRA CRITICALITY ignore TYPE PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAndCapacityAssistanceInfo-EUTRA PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN SETUP RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnSetupResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnSetupResponse-IEs}},

...

}

XnSetupResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE mandatory}|

{ ID id-TAISupport-list CRITICALITY reject TYPE TAISupport-List PRESENCE mandatory}|

{ ID id-List-of-served-cells-NR CRITICALITY reject TYPE ServedCells-NR PRESENCE optional }|

{ ID id-List-of-served-cells-E-UTRA CRITICALITY reject TYPE ServedCells-E-UTRA PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-AMF-Region-Information CRITICALITY reject TYPE AMF-Region-Information PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-TNLConfigurationInfo CRITICALITY ignore TYPE TNLConfigurationInfo PRESENCE optional }|

{ ID id-PartialListIndicator-NR CRITICALITY ignore TYPE PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-NR CRITICALITY ignore TYPE CellAndCapacityAssistanceInfo-NR PRESENCE optional }|

{ ID id-PartialListIndicator-EUTRA CRITICALITY ignore TYPE PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAndCapacityAssistanceInfo-EUTRA PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN SETUP FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnSetupFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnSetupFailure-IEs}},

...

}

XnSetupFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-TimeToWait CRITICALITY ignore TYPE TimeToWait PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-MessageOversizeNotification CRITICALITY ignore TYPE MessageOversizeNotification PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- NG-RAN NODE CONFIGURATION UPDATE

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGRANNodeConfigurationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ NGRANNodeConfigurationUpdate-IEs}},

...

}

NGRANNodeConfigurationUpdate-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-TAISupport-list CRITICALITY reject TYPE TAISupport-List PRESENCE optional }|

{ ID id-ConfigurationUpdateInitiatingNodeChoice CRITICALITY ignore TYPE ConfigurationUpdateInitiatingNodeChoice PRESENCE mandatory}|

{ ID id-TNLA-To-Add-List CRITICALITY ignore TYPE TNLA-To-Add-List PRESENCE optional }|

{ ID id-TNLA-To-Remove-List CRITICALITY ignore TYPE TNLA-To-Remove-List PRESENCE optional }|

{ ID id-TNLA-To-Update-List CRITICALITY ignore TYPE TNLA-To-Update-List PRESENCE optional }|

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE optional }|

{ ID id-AMF-Region-Information-To-Add CRITICALITY reject TYPE AMF-Region-Information PRESENCE optional }|

{ ID id-AMF-Region-Information-To-Delete CRITICALITY reject TYPE AMF-Region-Information PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-TNLConfigurationInfo CRITICALITY ignore TYPE TNLConfigurationInfo PRESENCE optional },

...

}

ConfigurationUpdateInitiatingNodeChoice ::= CHOICE {

gNB ProtocolIE-Container { {ConfigurationUpdate-gNB} },

ng-eNB ProtocolIE-Container { {ConfigurationUpdate-ng-eNB} },

choice-extension ProtocolIE-Single-Container { {ServedCellsToUpdateInitiatingNodeChoice-ExtIEs} }

}

ServedCellsToUpdateInitiatingNodeChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ConfigurationUpdate-gNB XNAP-PROTOCOL-IES ::= {

{ ID id-servedCellsToUpdate-NR CRITICALITY ignore TYPE ServedCellsToUpdate-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-NR CRITICALITY ignore TYPE CellAssistanceInfo-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAssistanceInfo-EUTRA PRESENCE optional },

...

}

ConfigurationUpdate-ng-eNB XNAP-PROTOCOL-IES ::= {

{ ID id-servedCellsToUpdate-E-UTRA CRITICALITY ignore TYPE ServedCellsToUpdate-E-UTRA PRESENCE optional }|

{ ID id-cellAssistanceInfo-NR CRITICALITY ignore TYPE CellAssistanceInfo-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAssistanceInfo-EUTRA PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- NG-RAN NODE CONFIGURATION UPDATE ACKNOWLEDGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGRANNodeConfigurationUpdateAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ NGRANNodeConfigurationUpdateAcknowledge-IEs}},

...

}

NGRANNodeConfigurationUpdateAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-RespondingNodeTypeConfigUpdateAck CRITICALITY ignore TYPE RespondingNodeTypeConfigUpdateAck PRESENCE mandatory}|

{ ID id-TNLA-Setup-List CRITICALITY ignore TYPE TNLA-Setup-List PRESENCE optional }|

{ ID id-TNLA-Failed-To-Setup-List CRITICALITY ignore TYPE TNLA-Failed-To-Setup-List PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-TNLConfigurationInfo CRITICALITY ignore TYPE TNLConfigurationInfo PRESENCE optional },

...

}

RespondingNodeTypeConfigUpdateAck ::= CHOICE {

ng-eNB RespondingNodeTypeConfigUpdateAck-ng-eNB,

gNB RespondingNodeTypeConfigUpdateAck-gNB,

choice-extension ProtocolIE-Single-Container { {RespondingNodeTypeConfigUpdateAck-ExtIEs} }

}

RespondingNodeTypeConfigUpdateAck-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

RespondingNodeTypeConfigUpdateAck-ng-eNB ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {RespondingNodeTypeConfigUpdateAck-ng-eNB-ExtIEs} } OPTIONAL,

...

}

RespondingNodeTypeConfigUpdateAck-ng-eNB-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-List-of-served-cells-E-UTRA CRITICALITY ignore EXTENSION ServedCells-E-UTRA PRESENCE optional }|

{ ID id-PartialListIndicator-EUTRA CRITICALITY ignore EXTENSION PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-EUTRA CRITICALITY ignore EXTENSION CellAndCapacityAssistanceInfo-EUTRA PRESENCE optional },

...

}

RespondingNodeTypeConfigUpdateAck-gNB ::= SEQUENCE {

served-NR-Cells ServedCells-NR OPTIONAL,

iE-Extension ProtocolExtensionContainer { {RespondingNodeTypeConfigUpdateAck-gNB-ExtIEs} } OPTIONAL,

...

}

RespondingNodeTypeConfigUpdateAck-gNB-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-PartialListIndicator-NR CRITICALITY ignore EXTENSION PartialListIndicator PRESENCE optional }|

{ ID id-CellAndCapacityAssistanceInfo-NR CRITICALITY ignore EXTENSION CellAndCapacityAssistanceInfo-NR PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- NG-RAN NODE CONFIGURATION UPDATE FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGRANNodeConfigurationUpdateFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{NGRANNodeConfigurationUpdateFailure-IEs}},

...

}

NGRANNodeConfigurationUpdateFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-TimeToWait CRITICALITY ignore TYPE TimeToWait PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- E-UTRA NR CELL RESOURCE COORDINATION REQUEST

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

E-UTRA-NR-CellResourceCoordinationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-UTRA-NR-CellResourceCoordinationRequest-IEs}},

...

}

E-UTRA-NR-CellResourceCoordinationRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-initiatingNodeType-ResourceCoordRequest CRITICALITY reject TYPE InitiatingNodeType-ResourceCoordRequest PRESENCE mandatory}|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

InitiatingNodeType-ResourceCoordRequest ::= CHOICE {

ng-eNB ResourceCoordRequest-ng-eNB-initiated,

gNB ResourceCoordRequest-gNB-initiated,

choice-extension ProtocolIE-Single-Container { {InitiatingNodeType-ResourceCoordRequest-ExtIEs} }

}

InitiatingNodeType-ResourceCoordRequest-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ResourceCoordRequest-ng-eNB-initiated ::= SEQUENCE {

dataTrafficResourceIndication DataTrafficResourceIndication,

spectrumSharingGroupID SpectrumSharingGroupID,

listofE-UTRACells SEQUENCE (SIZE(1.. maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResourceCoordRequest-ng-eNB-initiated-ExtIEs} } OPTIONAL,

...

}

ResourceCoordRequest-ng-eNB-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResourceCoordRequest-gNB-initiated ::= SEQUENCE {

dataTrafficResourceIndication DataTrafficResourceIndication,

listofE-UTRACells SEQUENCE (SIZE(1.. maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI OPTIONAL,

spectrumSharingGroupID SpectrumSharingGroupID,

listofNRCells SEQUENCE (SIZE(1.. maxnoofCellsinNG-RANnode)) OF NR-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResourceCoordRequest-gNB-initiated-ExtIEs} } OPTIONAL,

...

}

ResourceCoordRequest-gNB-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- E-UTRA NR CELL RESOURCE COORDINATION RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

E-UTRA-NR-CellResourceCoordinationResponse::= SEQUENCE {

protocolIEs ProtocolIE-Container {{E-UTRA-NR-CellResourceCoordinationResponse-IEs}},

...

}

E-UTRA-NR-CellResourceCoordinationResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-respondingNodeType-ResourceCoordResponse CRITICALITY reject TYPE RespondingNodeType-ResourceCoordResponse PRESENCE mandatory}|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

RespondingNodeType-ResourceCoordResponse ::= CHOICE {

ng-eNB ResourceCoordResponse-ng-eNB-initiated,

gNB ResourceCoordResponse-gNB-initiated,

choice-extension ProtocolIE-Single-Container { {RespondingNodeType-ResourceCoordResponse-ExtIEs} }

}

RespondingNodeType-ResourceCoordResponse-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ResourceCoordResponse-ng-eNB-initiated ::= SEQUENCE {

dataTrafficResourceIndication DataTrafficResourceIndication,

spectrumSharingGroupID SpectrumSharingGroupID,

listofE-UTRACells SEQUENCE (SIZE(1.. maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResourceCoordResponse-ng-eNB-initiated-ExtIEs} } OPTIONAL,

...

}

ResourceCoordResponse-ng-eNB-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResourceCoordResponse-gNB-initiated ::= SEQUENCE {

dataTrafficResourceIndication DataTrafficResourceIndication,

spectrumSharingGroupID SpectrumSharingGroupID,

listofNRCells SEQUENCE (SIZE(1.. maxnoofCellsinNG-RANnode)) OF NR-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResourceCoordResponse-gNB-initiated-ExtIEs} } OPTIONAL,

...

}

ResourceCoordResponse-gNB-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- SECONDARY RAT DATA USAGE REPORT

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SecondaryRATDataUsageReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{SecondaryRATDataUsageReport-IEs}},

...

}

SecondaryRATDataUsageReport-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-PDUSessionResourceSecondaryRATUsageList CRITICALITY reject TYPE PDUSessionResourceSecondaryRATUsageList PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN REMOVAL REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnRemovalRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnRemovalRequest-IEs}},

...

}

XnRemovalRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE mandatory}|

{ ID id-XnRemovalThreshold CRITICALITY reject TYPE XnBenefitValue PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN REMOVAL RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnRemovalResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnRemovalResponse-IEs}},

...

}

XnRemovalResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- XN REMOVAL FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnRemovalFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ XnRemovalFailure-IEs}},

...

}

XnRemovalFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- CELL ACTIVATION REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CellActivationRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ CellActivationRequest-IEs}},

...

}

CellActivationRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-ServedCellsToActivate CRITICALITY reject TYPE ServedCellsToActivate PRESENCE mandatory}|

{ ID id-ActivationIDforCellActivation CRITICALITY reject TYPE ActivationIDforCellActivation PRESENCE mandatory}|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

ServedCellsToActivate ::= CHOICE {

nr-cells SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF NR-CGI,

e-utra-cells SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI,

choice-extension ProtocolIE-Single-Container { {ServedCellsToActivate-ExtIEs} }

}

ServedCellsToActivate-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- CELL ACTIVATION RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CellActivationResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{CellActivationResponse-IEs}},

...

}

CellActivationResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-ActivatedServedCells CRITICALITY reject TYPE ActivatedServedCells PRESENCE mandatory}|

{ ID id-ActivationIDforCellActivation CRITICALITY reject TYPE ActivationIDforCellActivation PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

ActivatedServedCells ::= CHOICE {

nr-cells SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF NR-CGI,

e-utra-cells SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI,

choice-extension ProtocolIE-Single-Container { {ActivatedServedCells-ExtIEs} }

}

ActivatedServedCells-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- CELL ACTIVATION FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CellActivationFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{CellActivationFailure-IEs}},

...

}

CellActivationFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-ActivationIDforCellActivation CRITICALITY reject TYPE ActivationIDforCellActivation PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESET REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResetRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResetRequest-IEs}},

...

}

ResetRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-ResetRequestTypeInfo CRITICALITY reject TYPE ResetRequestTypeInfo PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESET RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResetResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResetResponse-IEs}},

...

}

ResetResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-ResetResponseTypeInfo CRITICALITY reject TYPE ResetResponseTypeInfo PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- ERROR INDICATION

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ErrorIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ErrorIndication-IEs}},

...

}

ErrorIndication-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-oldNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-newNG-RANnodeUEXnAPID CRITICALITY ignore TYPE NG-RANnodeUEXnAPID PRESENCE optional }|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE optional }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PRIVATE MESSAGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PrivateMessage ::= SEQUENCE {

privateIEs PrivateIE-Container {{PrivateMessage-IEs}},

...

}

PrivateMessage-IEs XNAP-PRIVATE-IES ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- TRACE START

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

TraceStart ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {TraceStartIEs} },

...

}

TraceStartIEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- DEACTIVATE TRACE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

DeactivateTrace ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {DeactivateTraceIEs} },

...

}

DeactivateTraceIEs XNAP-PROTOCOL-IES ::= {

{ ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

{ ID id-NG-RANTraceID CRITICALITY ignore TYPE NG-RANTraceID PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- FAILURE INDICATION

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

FailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{FailureIndication-IEs}},

...

}

FailureIndication-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-InitiatingCondition-FailureIndication CRITICALITY reject TYPE InitiatingCondition-FailureIndication PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- HANDOVER REPORT

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

HandoverReport ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ HandoverReport-IEs}},

...

}

HandoverReport-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-HandoverReportType CRITICALITY ignore TYPE HandoverReportType PRESENCE mandatory}|

{ ID id-HandoverCause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-SourceCellCGI CRITICALITY ignore TYPE GlobalNG-RANCell-ID PRESENCE mandatory }|

{ ID id-TargetCellCGI CRITICALITY ignore TYPE GlobalNG-RANCell-ID PRESENCE mandatory }|

{ ID id-ReEstablishmentCellCGI CRITICALITY ignore TYPE GlobalCell-ID PRESENCE conditional }|

-- This IE shall be present if the *Handover Report Type* IE is set to the value "HO to wrong cell"

{ ID id-TargetCellinEUTRAN CRITICALITY ignore TYPE TargetCellinEUTRAN PRESENCE conditional }|

-- This IE shall be present if the *Handover Report Type* IE is set to the value "Inter-system ping-pong"

{ ID id-SourceCellCRNTI CRITICALITY ignore TYPE C-RNTI PRESENCE optional }|

{ ID id-MobilityInformation CRITICALITY ignore TYPE MobilityInformation PRESENCE optional }|

{ ID id-UERLFReportContainer CRITICALITY ignore TYPE UERLFReportContainer PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESOURCE STATUS REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResourceStatusRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResourceStatusRequest-IEs}},

...

}

ResourceStatusRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NGRAN-Node1-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-NGRAN-Node2-Measurement-ID CRITICALITY ignore TYPE Measurement-ID PRESENCE conditional}|

-- This IE shall be present if the *Registration Request* IE is set to the value "stop", "partial stop" or "add".

{ ID id-RegistrationRequest CRITICALITY reject TYPE RegistrationRequest PRESENCE mandatory}|

{ ID id-ReportCharacteristics CRITICALITY reject TYPE ReportCharacteristics PRESENCE conditional}|

-- This IE shall be present if the *Registration Request* IE is set to the value "start".

{ ID id-CellToReport CRITICALITY ignore TYPE CellToReport PRESENCE optional}|

{ ID id-ReportingPeriodicity CRITICALITY ignore TYPE ReportingPeriodicity PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESOURCE STATUS RESPONSE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResourceStatusResponse ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResourceStatusResponse-IEs}},

...

}

ResourceStatusResponse-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NGRAN-Node1-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-NGRAN-Node2-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESOURCE STATUS FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResourceStatusFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResourceStatusFailure-IEs}},

...

}

ResourceStatusFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NGRAN-Node1-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-NGRAN-Node2-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- RESOURCE STATUS UPDATE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ResourceStatusUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ResourceStatusUpdate-IEs}},

...

}

ResourceStatusUpdate-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NGRAN-Node1-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-NGRAN-Node2-Measurement-ID CRITICALITY reject TYPE Measurement-ID PRESENCE mandatory}|

{ ID id-CellMeasurementResult CRITICALITY ignore TYPE CellMeasurementResult PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- MOBILITY CHANGE REQUEST

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

MobilityChangeRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{MobilityChangeRequest-IEs}},

...

}

MobilityChangeRequest-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NG-RANnode1CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-NG-RANnode2CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-NG-RANnode1MobilityParameters CRITICALITY reject TYPE MobilityParametersInformation PRESENCE optional}|

{ ID id-NG-RANnode2ProposedMobilityParameters CRITICALITY reject TYPE MobilityParametersInformation PRESENCE optional}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- MOBILITY CHANGE ACKNOWLEDGE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

MobilityChangeAcknowledge ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{MobilityChangeAcknowledge-IEs}},

...

}

MobilityChangeAcknowledge-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NG-RANnode1CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-NG-RANnode2CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- MOBILITY CHANGE FAILURE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

MobilityChangeFailure ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{MobilityChangeFailure-IEs}},

...

}

MobilityChangeFailure-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-NG-RANnode1CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-NG-RANnode2CellID CRITICALITY reject TYPE GlobalNG-RANCell-ID PRESENCE mandatory}|

{ ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory}|

{ ID id-MobilityParametersModificationRange CRITICALITY reject TYPE MobilityParametersModificationRange PRESENCE optional}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- ACCESS AND MOBILITY INDICATION

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

AccessAndMobilityIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ AccessAndMobilityIndication-IEs}},

...

}

AccessAndMobilityIndication-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-RACHReportInformation CRITICALITY ignore TYPE RACHReportInformation PRESENCE optional},

...

}

END

-- ASN1STOP

9.3.5 Information Element definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Information Element Definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-CNTypeRestrictionsForEquivalent,

id-CNTypeRestrictionsForServing,

id-Additional-UL-NG-U-TNLatUPF-List,

id-ConfiguredTACIndication,

id-AlternativeQoSParaSetList,

id-CurrentQoSParaSetIndex,

id-DefaultDRB-Allowed,

id-DLCarrierList,

id-EndpointIPAddressAndPort,

id-ExtendedTAISliceSupportList,

id-FiveGCMobilityRestrictionListContainer,

id-SecondarydataForwardingInfoFromTarget-List,

id-LastE-UTRANPLMNIdentity,

id-IntendedTDD-DL-ULConfiguration-NR,

id-MaxIPrate-DL,

id-SecurityResult,

id-OldQoSFlowMap-ULendmarkerexpected,

id-PDUSessionCommonNetworkInstance,

id-BPLMN-ID-Info-EUTRA,

id-BPLMN-ID-Info-NR,

id-DRBsNotAdmittedSetupModifyList,

id-Secondary-MN-Xn-U-TNLInfoatM,

id-ULForwardingProposal,

id-DRB-IDs-takenintouse,

id-SplitSessionIndicator,

id-NonGBRResources-Offered,

id-MDT-Configuration,

id-TraceCollectionEntityURI,

id-NPN-Broadcast-Information,

id-NPNPagingAssistanceInformation,

id-NPNMobilityInformation,

id-NPN-Support,

id-LTEUESidelinkAggregateMaximumBitRate,

id-NRUESidelinkAggregateMaximumBitRate,

id-ExtendedRATRestrictionInformation,

id-QoSMonitoringRequest,

id-QoSMonitoringDisabled,

id-QosMonitoringReportingFrequency,

id-DAPSRequestInfo,

id-OffsetOfNbiotChannelNumberToDL-EARFCN,

id-OffsetOfNbiotChannelNumberToUL-EARFCN,

id-NBIoT-UL-DL-AlignmentOffset,

id-TDDULDLConfigurationCommonNR,

id-CarrierList,

id-ULCarrierList,

id-FrequencyShift7p5khz,

id-SSB-PositionsInBurst,

id-NRCellPRACHConfig,

id-Redundant-UL-NG-U-TNLatUPF,

id-Redundant-DL-NG-U-TNLatNG-RAN,

id-CNPacketDelayBudgetDownlink,

id-CNPacketDelayBudgetUplink,

id-ExtendedPacketDelayBudget,

id-Additional-Redundant-UL-NG-U-TNLatUPF-List,

id-RedundantCommonNetworkInstance,

id-TSCTrafficCharacteristics,

id-RedundantQoSFlowIndicator,

id-Additional-PDCP-Duplication-TNL-List,

id-RedundantPDUSessionInformation,

id-UsedRSNInformation,

id-RLCDuplicationInformation,

id-CSI-RSTransmissionIndication,

id-UERadioCapabilityID,

id-secondary-SN-UL-PDCP-UP-TNLInfo,

id-pdcpDuplicationConfiguration,

id-duplicationActivation,

id-NPRACHConfiguration,

id-QoSFlowsMappedtoDRB-SetupResponse-MNterminated,

id-DL-scheduling-PDCCH-CCE-usage,

id-UL-scheduling-PDCCH-CCE-usage,

id-SFN-Offset,

id-QoS-Mapping-Information,

id-AdditionLocationInformation,

id-dataForwardingInfoFromTargetE-UTRANnode,

id-Cause,

id-UESliceMaximumBitRateList,

maxEARFCN,

maxnoofAllowedAreas,

maxnoofAMFRegions,

maxnoofAoIs,

maxnoofBPLMNs,

maxnoofCAGs,

maxnoofCAGsperPLMN,

maxnoofCellsinAoI,

maxnoofCellsinNG-RANnode,

maxnoofCellsinRNA,

maxnoofCellsinUEHistoryInfo,

maxnoofCellsUEMovingTrajectory,

maxnoofDRBs,

maxnoofEPLMNs,

maxnoofEPLMNsplus1,

maxnoofEUTRABands,

maxnoofEUTRABPLMNs,

maxnoofForbiddenTACs,

maxnoofMBSFNEUTRA,

maxnoofMultiConnectivityMinusOne,

maxnoofNeighbours,

maxnoofNIDs,

maxnoofNRCellBands,

maxnoofPDUSessions,

maxnoofPLMNs,

maxnoofProtectedResourcePatterns,

maxnoofQoSFlows,

maxnoofQoSParaSets,

maxnoofRANAreaCodes,

maxnoofRANAreasinRNA,

maxnoofSCellGroups,

maxnoofSCellGroupsplus1,

maxnoofSliceItems,

maxnoofExtSliceItems,

maxnoofSNPNIDs,

maxnoofsupportedTACs,

maxnoofsupportedPLMNs,

maxnoofTAI,

maxnoofTAIsinAoI,

maxnoofTNLAssociations,

maxnoofUEContexts,

maxNRARFCN,

maxNrOfErrors,

maxnoofRANNodesinAoI,

maxnooftimeperiods,

maxnoofslots,

maxnoofExtTLAs,

maxnoofGTPTLAs,

maxnoofCHOcells,

maxnoofPC5QoSFlows,

maxnoofSSBAreas,

maxnoofNRSCSs,

maxnoofPhysicalResourceBlocks,

maxnoofRACHReports,

maxnoofAdditionalPDCPDuplicationTNL,

maxnoofRLCDuplicationstate,

maxnoofBluetoothName,

maxnoofCellIDforMDT,

maxnoofMDTPLMNs,

maxnoofTAforMDT,

maxnoofWLANName,

maxnoofSensorName,

maxnoofNeighPCIforMDT,

maxnoofFreqforMDT,

maxnoofNonAnchorCarrierFreqConfig,

maxnoofDataForwardingTunneltoE-UTRAN,

maxnoofSMBR

FROM XnAP-Constants

Criticality,

ProcedureCode,

ProtocolIE-ID,

TriggeringMessage

FROM XnAP-CommonDataTypes

ProtocolExtensionContainer{},

ProtocolIE-Single-Container{},

XNAP-PROTOCOL-EXTENSION,

XNAP-PROTOCOL-IES

FROM XnAP-Containers;

-- A

AdditionLocationInformation ::= ENUMERATED {

includePSCell,

...

}

Additional-PDCP-Duplication-TNL-List ::= SEQUENCE (SIZE(1..maxnoofAdditionalPDCPDuplicationTNL)) OF Additional-PDCP-Duplication-TNL-Item

Additional-PDCP-Duplication-TNL-Item ::= SEQUENCE {  
 additional-PDCP-Duplication-UP-TNL-Information UPTransportLayerInformation,  
 iE-Extensions ProtocolExtensionContainer { { Additional-PDCP-Duplication-TNL-ExtIEs} } OPTIONAL,  
 ...  
}

Additional-PDCP-Duplication-TNL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {  
 ...  
}

Additional-UL-NG-U-TNLatUPF-Item ::= SEQUENCE {

additional-UL-NG-U-TNLatUPF UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { Additional-UL-NG-U-TNLatUPF-Item-ExtIEs} } OPTIONAL,

...

}

Additional-UL-NG-U-TNLatUPF-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional},

...

}

Additional-UL-NG-U-TNLatUPF-List ::= SEQUENCE (SIZE(1..maxnoofMultiConnectivityMinusOne)) OF Additional-UL-NG-U-TNLatUPF-Item

ActivationIDforCellActivation ::= INTEGER (0..255)

AllocationandRetentionPriority ::= SEQUENCE {

priorityLevel INTEGER (0..15,...),

pre-emption-capability ENUMERATED {shall-not-trigger-preemptdatDion, may-trigger-preemption, ...},

pre-emption-vulnerability ENUMERATED {not-preemptable, preemptable, ...},

iE-Extensions ProtocolExtensionContainer { {AllocationandRetentionPriority-ExtIEs} } OPTIONAL,

...

}

AllocationandRetentionPriority-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ActivationSFN ::= INTEGER (0..1023)

AllowedCAG-ID-List-perPLMN ::= SEQUENCE (SIZE(1..maxnoofCAGsperPLMN)) OF CAG-Identifier

AllowedPNI-NPN-ID-List ::= SEQUENCE (SIZE(1..maxnoofEPLMNsplus1)) OF AllowedPNI-NPN-ID-Item

AllowedPNI-NPN-ID-Item ::= SEQUENCE {

plmn-id PLMN-Identity,

pni-npn-restricted-information PNI-NPN-Restricted-Information,

allowed-CAG-id-list-per-plmn AllowedCAG-ID-List-perPLMN,

iE-Extensions ProtocolExtensionContainer { {AllowedPNI-NPN-ID-Item-ExtIEs} } OPTIONAL,

...

}

AllowedPNI-NPN-ID-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AlternativeQoSParaSetList ::= SEQUENCE (SIZE(1..maxnoofQoSParaSets)) OF AlternativeQoSParaSetItem

AlternativeQoSParaSetItem ::= SEQUENCE {

alternativeQoSParaSetIndex QoSParaSetIndex,

guaranteedFlowBitRateDL BitRate OPTIONAL,

guaranteedFlowBitRateUL BitRate OPTIONAL,

packetDelayBudget PacketDelayBudget OPTIONAL,

packetErrorRate PacketErrorRate OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {AlternativeQoSParaSetItem-ExtIEs} } OPTIONAL,

...

}

AlternativeQoSParaSetItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AMF-Region-Information ::= SEQUENCE (SIZE (1..maxnoofAMFRegions)) OF GlobalAMF-Region-Information

GlobalAMF-Region-Information ::= SEQUENCE {

plmn-ID PLMN-Identity,

amf-region-id BIT STRING (SIZE (8)),

iE-Extensions ProtocolExtensionContainer { {GlobalAMF-Region-Information-ExtIEs} } OPTIONAL,

...

}

GlobalAMF-Region-Information-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AMF-UE-NGAP-ID ::= INTEGER (0..1099511627775)

AreaOfInterestInformation ::= SEQUENCE (SIZE(1..maxnoofAoIs)) OF AreaOfInterest-Item

AreaOfInterest-Item ::= SEQUENCE {

listOfTAIsinAoI ListOfTAIsinAoI OPTIONAL,

listOfCellsinAoI ListOfCells OPTIONAL,

listOfRANNodesinAoI ListOfRANNodesinAoI OPTIONAL,

requestReferenceID RequestReferenceID,

iE-Extensions ProtocolExtensionContainer { {AreaOfInterest-Item-ExtIEs} } OPTIONAL,

...

}

AreaOfInterest-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AreaScopeOfMDT-NR ::= CHOICE {

cellBased CellBasedMDT-NR,

tABased TABasedMDT,

tAIBased TAIBasedMDT,

...

}

AreaScopeOfMDT-EUTRA ::= CHOICE {

cellBased CellBasedMDT-EUTRA,

tABased TABasedMDT,

tAIBased TAIBasedMDT,

...

}

AreaScopeOfNeighCellsList ::= SEQUENCE (SIZE(1..maxnoofFreqforMDT)) OF AreaScopeOfNeighCellsItem

AreaScopeOfNeighCellsItem ::= SEQUENCE {

nrFrequencyInfo NRFrequencyInfo,

pciListForMDT PCIListForMDT OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { AreaScopeOfNeighCellsItem-ExtIEs} } OPTIONAL,

...

}

AreaScopeOfNeighCellsItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AS-SecurityInformation ::= SEQUENCE {

key-NG-RAN-Star BIT STRING (SIZE(256)),

ncc INTEGER (0..7),

iE-Extensions ProtocolExtensionContainer { {AS-SecurityInformation-ExtIEs} } OPTIONAL,

...

}

AS-SecurityInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AssistanceDataForRANPaging ::= SEQUENCE {

ran-paging-attempt-info RANPagingAttemptInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {AssistanceDataForRANPaging-ExtIEs} } OPTIONAL,

...

}

AssistanceDataForRANPaging-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-NPNPagingAssistanceInformation CRITICALITY ignore EXTENSION NPNPagingAssistanceInformation PRESENCE optional },

...

}

AvailableCapacity ::= INTEGER (1.. 100,...)

AvailableRRCConnectionCapacityValue ::= INTEGER (0..100)

AveragingWindow ::= INTEGER (0..4095, ...)

-- B

BluetoothMeasurementConfiguration ::= SEQUENCE {

bluetoothMeasConfig BluetoothMeasConfig,

bluetoothMeasConfigNameList BluetoothMeasConfigNameList OPTIONAL,

bt-rssi ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { BluetoothMeasurementConfiguration-ExtIEs } } OPTIONAL,

...

}

BluetoothMeasurementConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

BluetoothMeasConfigNameList ::= SEQUENCE (SIZE(1..maxnoofBluetoothName)) OF BluetoothName

BluetoothMeasConfig::= ENUMERATED {setup,...}

BluetoothName ::= OCTET STRING (SIZE (1..248))

BPLMN-ID-Info-EUTRA ::= SEQUENCE (SIZE(1..maxnoofEUTRABPLMNs)) OF BPLMN-ID-Info-EUTRA-Item

BPLMN-ID-Info-EUTRA-Item ::= SEQUENCE {

broadcastPLMNs BroadcastEUTRAPLMNs,

tac TAC,

e-utraCI E-UTRA-Cell-Identity,

ranac RANAC OPTIONAL,

iE-Extension ProtocolExtensionContainer { {BPLMN-ID-Info-EUTRA-Item-ExtIEs} } OPTIONAL,

...

}

BPLMN-ID-Info-EUTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

BPLMN-ID-Info-NR ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF BPLMN-ID-Info-NR-Item

BPLMN-ID-Info-NR-Item ::= SEQUENCE {

broadcastPLMNs BroadcastPLMNs,

tac TAC,

nr-CI NR-Cell-Identity,

ranac RANAC OPTIONAL,

iE-Extension ProtocolExtensionContainer { {BPLMN-ID-Info-NR-Item-ExtIEs} } OPTIONAL,

...

}

BPLMN-ID-Info-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

{ ID id-NPN-Broadcast-Information CRITICALITY reject EXTENSION NPN-Broadcast-Information PRESENCE optional },

...

}

BitRate ::= INTEGER (0..4000000000000,...)

BroadcastCAG-Identifier-List ::= SEQUENCE (SIZE(1..maxnoofCAGs)) OF BroadcastCAG-Identifier-Item

BroadcastCAG-Identifier-Item ::= SEQUENCE {

cag-Identifier CAG-Identifier,

iE-Extension ProtocolExtensionContainer { {BroadcastCAG-Identifier-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastCAG-Identifier-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastNID-List ::= SEQUENCE (SIZE(1..maxnoofNIDs)) OF BroadcastNID-Item

BroadcastNID-Item ::= SEQUENCE {

nid NID,

iE-Extension ProtocolExtensionContainer { {BroadcastNID-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastNID-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastPLMNs ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF PLMN-Identity

BroadcastEUTRAPLMNs ::= SEQUENCE (SIZE(1..maxnoofEUTRABPLMNs)) OF PLMN-Identity

BroadcastPLMNinTAISupport-Item ::= SEQUENCE {

plmn-id PLMN-Identity,

tAISliceSupport-List SliceSupport-List,

iE-Extension ProtocolExtensionContainer { {BroadcastPLMNinTAISupport-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastPLMNinTAISupport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-NPN-Support CRITICALITY reject EXTENSION NPN-Support PRESENCE optional}|

{ ID id-ExtendedTAISliceSupportList CRITICALITY reject EXTENSION ExtendedSliceSupportList PRESENCE optional},

...

}

BroadcastPNI-NPN-ID-Information ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF BroadcastPNI-NPN-ID-Information-Item

BroadcastPNI-NPN-ID-Information-Item ::= SEQUENCE {

plmn-id PLMN-Identity,

broadcastCAG-Identifier-List BroadcastCAG-Identifier-List,

iE-Extension ProtocolExtensionContainer { {BroadcastPNI-NPN-ID-Information-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastPNI-NPN-ID-Information-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

BroadcastSNPNID-List ::= SEQUENCE (SIZE(1..maxnoofSNPNIDs)) OF BroadcastSNPNID

BroadcastSNPNID ::= SEQUENCE {

plmn-id PLMN-Identity,

broadcastNID-List BroadcastNID-List,

iE-Extension ProtocolExtensionContainer { {BroadcastSNPNID-ExtIEs} } OPTIONAL,

...

}

BroadcastSNPNID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- C

CAG-Identifier ::= BIT STRING (SIZE (32))

CapacityValue ::= INTEGER (0..100)

CapacityValueInfo ::= SEQUENCE {

capacityValue CapacityValue,

ssbAreaCapacityValueList SSBAreaCapacityValue-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {CapacityValueInfo-ExtIEs} } OPTIONAL,

...

}

CapacityValueInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Cause ::= CHOICE {

radioNetwork CauseRadioNetworkLayer,

transport CauseTransportLayer,

protocol CauseProtocol,

misc CauseMisc,

choice-extension ProtocolIE-Single-Container { {Cause-ExtIEs} }

}

Cause-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

CauseRadioNetworkLayer ::= ENUMERATED {

cell-not-available,

handover-desirable-for-radio-reasons,

handover-target-not-allowed,

invalid-AMF-Set-ID,

no-radio-resources-available-in-target-cell,

partial-handover,

reduce-load-in-serving-cell,

resource-optimisation-handover,

time-critical-handover,

tXnRELOCoverall-expiry,

tXnRELOCprep-expiry,

unknown-GUAMI-ID,

unknown-local-NG-RAN-node-UE-XnAP-ID,

inconsistent-remote-NG-RAN-node-UE-XnAP-ID,

encryption-and-or-integrity-protection-algorithms-not-supported,

protection-algorithms-not-supported,

multiple-PDU-session-ID-instances,

unknown-PDU-session-ID,

unknown-QoS-Flow-ID,

multiple-QoS-Flow-ID-instances,

switch-off-ongoing,

not-supported-5QI-value,

tXnDCoverall-expiry,

tXnDCprep-expiry,

action-desirable-for-radio-reasons,

reduce-load,

resource-optimisation,

time-critical-action,

target-not-allowed,

no-radio-resources-available,

invalid-QoS-combination,

encryption-algorithms-not-supported,

procedure-cancelled,

rRM-purpose,

improve-user-bit-rate,

user-inactivity,

radio-connection-with-UE-lost,

failure-in-the-radio-interface-procedure,

bearer-option-not-supported,

up-integrity-protection-not-possible,

up-confidentiality-protection-not-possible,

resources-not-available-for-the-slice-s,

ue-max-IP-data-rate-reason,

cP-integrity-protection-failure,

uP-integrity-protection-failure,

slice-not-supported-by-NG-RAN,

mN-Mobility,

sN-Mobility,

count-reaches-max-value,

unknown-old-NG-RAN-node-UE-XnAP-ID,

pDCP-Overload,

drb-id-not-available,

unspecified,

...,

ue-context-id-not-known,

non-relocation-of-context,

cho-cpc-resources-tobechanged,

rSN-not-available-for-the-UP,

npn-access-denied,

report-characteristics-empty,

existing-measurement-ID,

measurement-temporarily-not-available,

measurement-not-supported-for-the-object,

ue-power-saving,

unknown-NG-RAN-node2-Measurement-ID,

insufficient-ue-capabilities,

normal-release

}

CauseTransportLayer ::= ENUMERATED {

transport-resource-unavailable,

unspecified,

...

}

CauseProtocol ::= ENUMERATED {

transfer-syntax-error,

abstract-syntax-error-reject,

abstract-syntax-error-ignore-and-notify,

message-not-compatible-with-receiver-state,

semantic-error,

abstract-syntax-error-falsely-constructed-message,

unspecified,

...

}

CauseMisc ::= ENUMERATED {

control-processing-overload,

hardware-failure,

o-and-M-intervention,

not-enough-user-plane-processing-resources,

unspecified,

...

}

CellAssistanceInfo-NR ::= CHOICE {

limitedNR-List SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF NR-CGI,

full-List ENUMERATED {all-served-cells-NR, ...},

choice-extension ProtocolIE-Single-Container { {CellAssistanceInfo-NR-ExtIEs} }

}

CellAssistanceInfo-NR-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

CellAndCapacityAssistanceInfo-NR ::= SEQUENCE {

maximumCellListSize MaximumCellListSize OPTIONAL,

cellAssistanceInfo-NR CellAssistanceInfo-NR OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellAndCapacityAssistanceInfo-NR-ExtIEs} } OPTIONAL,

...

}

CellAndCapacityAssistanceInfo-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CellAndCapacityAssistanceInfo-EUTRA ::= SEQUENCE {

maximumCellListSize MaximumCellListSize OPTIONAL,

cellAssistanceInfo-EUTRA CellAssistanceInfo-EUTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellAndCapacityAssistanceInfo-EUTRA-ExtIEs} } OPTIONAL,

...

}

CellAndCapacityAssistanceInfo-EUTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CellAssistanceInfo-EUTRA ::= CHOICE {

limitedEUTRA-List SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI,

full-List ENUMERATED {all-served-cells-E-UTRA, ...},

choice-extension ProtocolIE-Single-Container { {CellAssistanceInfo-EUTRA-ExtIEs} }

}

CellAssistanceInfo-EUTRA-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

CellBasedMDT-NR::= SEQUENCE {

cellIdListforMDT-NR CellIdListforMDT-NR,

iE-Extensions ProtocolExtensionContainer { {CellBasedMDT-NR-ExtIEs} } OPTIONAL,

...

}

CellBasedMDT-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CellIdListforMDT-NR ::= SEQUENCE (SIZE(1..maxnoofCellIDforMDT)) OF NR-CGI

CellBasedMDT-EUTRA::= SEQUENCE {

cellIdListforMDT-EUTRA CellIdListforMDT-EUTRA,

iE-Extensions ProtocolExtensionContainer { {CellBasedMDT-EUTRA-ExtIEs} } OPTIONAL,

...

}

CellBasedMDT-EUTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CellIdListforMDT-EUTRA ::= SEQUENCE (SIZE(1..maxnoofCellIDforMDT)) OF E-UTRA-CGI

CellCapacityClassValue ::= INTEGER (1..100,...)

CellGroupID ::= INTEGER (0..maxnoofSCellGroups)

CellMeasurementResult ::= SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF CellMeasurementResult-Item

CellMeasurementResult-Item ::= SEQUENCE {

cell-ID GlobalNG-RANCell-ID,

radioResourceStatus RadioResourceStatus OPTIONAL,

tNLCapacityIndicator TNLCapacityIndicator OPTIONAL,

compositeAvailableCapacityGroup CompositeAvailableCapacityGroup OPTIONAL,

sliceAvailableCapacity SliceAvailableCapacity OPTIONAL,

numberofActiveUEs NumberofActiveUEs OPTIONAL,

rRCConnections RRCConnections OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellMeasurementResult-Item-ExtIEs} } OPTIONAL,

...

}

CellMeasurementResult-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CellToReport ::= SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF CellToReport-Item

CellToReport-Item ::= SEQUENCE {

cell-ID GlobalNG-RANCell-ID,

sSBToReport-List SSBToReport-List OPTIONAL,

sliceToReport-List SliceToReport-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CellToReport-Item-ExtIEs} } OPTIONAL,

...

}

CellToReport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Cell-Type-Choice ::= CHOICE {

ng-ran-e-utra E-UTRA-Cell-Identity,

ng-ran-nr NR-Cell-Identity,

e-utran E-UTRA-Cell-Identity,

choice-extension ProtocolIE-Single-Container { { Cell-Type-Choice-ExtIEs} }

}

Cell-Type-Choice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

CompositeAvailableCapacityGroup ::= SEQUENCE {

compositeAvailableCapacityDownlink CompositeAvailableCapacity,

compositeAvailableCapacityUplink CompositeAvailableCapacity,

iE-Extensions ProtocolExtensionContainer { { CompositeAvailableCapacityGroup-ExtIEs} } OPTIONAL,

...

}

CompositeAvailableCapacityGroup-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CompositeAvailableCapacity ::= SEQUENCE {

cellCapacityClassValue CellCapacityClassValue OPTIONAL,

capacityValueInfo CapacityValueInfo, -- this IE represents the IE "CapacityValue" in 9.2.2.a, it’s used to distinguish the "CapacityValue" in 9.2.2.c

iE-Extensions ProtocolExtensionContainer { { CompositeAvailableCapacity-ExtIEs} }OPTIONAL,

...

}

CompositeAvailableCapacity-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CHO-MRDC-EarlyDataForwarding ::= ENUMERATED {stop, ...}

CHO-MRDC-Indicator ::= ENUMERATED {true, ...}

CHOtrigger ::= ENUMERATED {

cho-initiation,

cho-replace,

...

}

CHOinformation-Req ::= SEQUENCE {

cho-trigger CHOtrigger,

targetNG-RANnodeUEXnAPID NG-RANnodeUEXnAPID OPTIONAL

-- This IE shall be present if the cho-trigger IE is present and set to "CHO-replace" --,

cHO-EstimatedArrivalProbability CHO-Probability OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CHOinformation-Req-ExtIEs} } OPTIONAL,

...

}

CHOinformation-Req-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

CHOinformation-Ack ::= SEQUENCE {

requestedTargetCellGlobalID Target-CGI,

maxCHOoperations MaxCHOpreparations OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { CHOinformation-Ack-ExtIEs} } OPTIONAL,

...

}

CHOinformation-Ack-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

CHO-Probability ::= INTEGER (1..100)

ConfiguredTACIndication ::= ENUMERATED {

true,

...

}

Connectivity-Support ::= SEQUENCE {

eNDC-Support ENUMERATED {supported, not-supported, ...},

iE-Extensions ProtocolExtensionContainer { {Connectivity-Support-ExtIEs} } OPTIONAL,

...

}

Connectivity-Support-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

COUNT-PDCP-SN12 ::= SEQUENCE {

pdcp-SN12 INTEGER (0..4095),

hfn-PDCP-SN12 INTEGER (0..1048575),

iE-Extensions ProtocolExtensionContainer { {COUNT-PDCP-SN12-ExtIEs} } OPTIONAL,

...

}

COUNT-PDCP-SN12-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

COUNT-PDCP-SN18 ::= SEQUENCE {

pdcp-SN18 INTEGER (0..262143),

hfn-PDCP-SN18 INTEGER (0..16383),

iE-Extensions ProtocolExtensionContainer { {COUNT-PDCP-SN18-ExtIEs} } OPTIONAL,

...

}

COUNT-PDCP-SN18-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CPTransportLayerInformation ::= CHOICE {

endpointIPAddress TransportLayerAddress,

choice-extension ProtocolIE-Single-Container { {CPTransportLayerInformation-ExtIEs} }

}

CPTransportLayerInformation-ExtIEs XNAP-PROTOCOL-IES ::= {

{ ID id-EndpointIPAddressAndPort CRITICALITY reject TYPE EndpointIPAddressAndPort PRESENCE mandatory},

...

}

CriticalityDiagnostics ::= SEQUENCE {

procedureCode ProcedureCode OPTIONAL,

triggeringMessage TriggeringMessage OPTIONAL,

procedureCriticality Criticality OPTIONAL,

iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,

...

}

CriticalityDiagnostics-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF

SEQUENCE {

iECriticality Criticality,

iE-ID ProtocolIE-ID,

typeOfError TypeOfError,

iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,

...

}

CriticalityDiagnostics-IE-List-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

C-RNTI ::= BIT STRING (SIZE(16))

CyclicPrefix-E-UTRA-DL ::= ENUMERATED {

normal,

extended,

...

}

CyclicPrefix-E-UTRA-UL ::= ENUMERATED {

normal,

extended,

...

}

CSI-RSTransmissionIndication ::= ENUMERATED {

activated,

deactivated,

...

}

-- D

XnUAddressInfoperPDUSession-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF XnUAddressInfoperPDUSession-Item

XnUAddressInfoperPDUSession-Item ::= SEQUENCE {

pduSession-ID PDUSession-ID,

dataForwardingInfoFromTargetNGRANnode DataForwardingInfoFromTargetNGRANnode OPTIONAL,

pduSessionResourceSetupCompleteInfo-SNterm PDUSessionResourceBearerSetupCompleteInfo-SNterminated OPTIONAL,

iE-Extension ProtocolExtensionContainer { { XnUAddressInfoperPDUSession-Item-ExtIEs} } OPTIONAL,

...

}

XnUAddressInfoperPDUSession-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-SecondarydataForwardingInfoFromTarget-List CRITICALITY ignore EXTENSION SecondarydataForwardingInfoFromTarget-List PRESENCE optional}|

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional}|

{ ID id-dataForwardingInfoFromTargetE-UTRANnode CRITICALITY ignore EXTENSION DataForwardingInfoFromTargetE-UTRANnode PRESENCE optional},

...

}

DataForwardingAccepted ::= ENUMERATED {data-forwarding-accepted, ...}

DataForwardingInfoFromTargetE-UTRANnode ::= SEQUENCE {

dataForwardingInfoFromTargetE-UTRANnode-List DataForwardingInfoFromTargetE-UTRANnode-List,

iE-Extension ProtocolExtensionContainer { { DataForwardingInfoFromTargetE-UTRANnode-ExtIEs} } OPTIONAL,

...

}

DataForwardingInfoFromTargetE-UTRANnode-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DataForwardingInfoFromTargetE-UTRANnode-List ::= SEQUENCE (SIZE(1.. maxnoofDataForwardingTunneltoE-UTRAN)) OF DataForwardingInfoFromTargetE-UTRANnode-Item

DataForwardingInfoFromTargetE-UTRANnode-Item ::= SEQUENCE {

dlForwardingUPTNLInformation UPTransportLayerInformation,

qosFlowsToBeForwarded-List QoSFlowsToBeForwarded-List,

iE-Extension ProtocolExtensionContainer { { DataForwardingInfoFromTargetE-UTRANnode-Item-ExtIEs} } OPTIONAL,

...

}

DataForwardingInfoFromTargetE-UTRANnode-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSFlowsToBeForwarded-List ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsToBeForwarded-Item

QoSFlowsToBeForwarded-Item ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

iE-Extension ProtocolExtensionContainer { { QoSFlowsToBeForwarded-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsToBeForwarded-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DataForwardingInfoFromTargetNGRANnode ::= SEQUENCE {

qosFlowsAcceptedForDataForwarding-List QoSFLowsAcceptedToBeForwarded-List,

pduSessionLevelDLDataForwardingInfo UPTransportLayerInformation OPTIONAL,

pduSessionLevelULDataForwardingInfo UPTransportLayerInformation OPTIONAL,

dataForwardingResponseDRBItemList DataForwardingResponseDRBItemList OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DataForwardingInfoFromTargetNGRANnode-ExtIEs} } OPTIONAL,

...

}

DataForwardingInfoFromTargetNGRANnode-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSFLowsAcceptedToBeForwarded-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoSFLowsAcceptedToBeForwarded-Item

QoSFLowsAcceptedToBeForwarded-Item ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

iE-Extension ProtocolExtensionContainer { {QoSFLowsAcceptedToBeForwarded-Item-ExtIEs} } OPTIONAL,

...

}

QoSFLowsAcceptedToBeForwarded-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DataforwardingandOffloadingInfofromSource ::= SEQUENCE {

qosFlowsToBeForwarded QoSFLowsToBeForwarded-List,

sourceDRBtoQoSFlowMapping DRBToQoSFlowMapping-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DataforwardingandOffloadingInfofromSource-ExtIEs} } OPTIONAL,

...

}

DataforwardingandOffloadingInfofromSource-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSFLowsToBeForwarded-List ::= SEQUENCE (SIZE(1.. maxnoofQoSFlows)) OF QoSFLowsToBeForwarded-Item

QoSFLowsToBeForwarded-Item ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

dl-dataforwarding DLForwarding,

ul-dataforwarding ULForwarding,

iE-Extension ProtocolExtensionContainer { {QoSFLowsToBeForwarded-Item-ExtIEs} } OPTIONAL,

...

}

QoSFLowsToBeForwarded-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-ULForwardingProposal CRITICALITY ignore EXTENSION ULForwardingProposal PRESENCE optional },

...

}

DataForwardingResponseDRBItemList ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DataForwardingResponseDRBItem

DataForwardingResponseDRBItem ::= SEQUENCE {

drb-ID DRB-ID,

dlForwardingUPTNL UPTransportLayerInformation OPTIONAL,

ulForwardingUPTNL UPTransportLayerInformation OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DataForwardingResponseDRBItem-ExtIEs} } OPTIONAL,

...

}

DataForwardingResponseDRBItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DataTrafficResources ::= BIT STRING (SIZE(6..17600))

DataTrafficResourceIndication ::= SEQUENCE {

activationSFN ActivationSFN,

sharedResourceType SharedResourceType,

reservedSubframePattern ReservedSubframePattern OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DataTrafficResourceIndication-ExtIEs} } OPTIONAL,

...

}

DataTrafficResourceIndication-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DAPSRequestInfo ::= SEQUENCE {

dapsIndicator ENUMERATED {daps-HO-required, ...},

iE-Extensions ProtocolExtensionContainer { {DAPSRequestInfo-ExtIEs} } OPTIONAL,

...

}

DAPSRequestInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DAPSResponseInfo-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DAPSResponseInfo-Item

DAPSResponseInfo-Item ::= SEQUENCE {

drbID DRB-ID,

dapsResponseIndicator ENUMERATED {daps-HO-accepted, daps-HO-not-accepted, ...},

iE-Extensions ProtocolExtensionContainer { {DAPSResponseInfo-Item-ExtIEs} } OPTIONAL,

...

}

DAPSResponseInfo-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DeliveryStatus ::= INTEGER (0..4095, ...)

DesiredActNotificationLevel ::= ENUMERATED {none, qos-flow, pdu-session, ue-level, ...}

DefaultDRB-Allowed ::= ENUMERATED {true, false, ...}

DLCountChoice ::= CHOICE {

count12bits COUNT-PDCP-SN12,

count18bits COUNT-PDCP-SN18,

choice-extension ProtocolIE-Single-Container { {DLCountChoice-ExtIEs} }

}

DLCountChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

DLForwarding ::= ENUMERATED {dl-forwarding-proposed, ...}

DL-GBR-PRB-usage::= INTEGER (0..100)

DL-non-GBR-PRB-usage::= INTEGER (0..100)

DL-Total-PRB-usage::= INTEGER (0..100)

DRB-ID ::= INTEGER (1..32, ...)

DRB-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRB-ID

DRB-List-withCause ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRB-List-withCause-Item

DRB-List-withCause-Item ::= SEQUENCE {

drb-id DRB-ID,

cause Cause,

rLC-Mode RLCMode OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DRB-List-withCause-Item-ExtIEs} } OPTIONAL,

...

}

DRB-List-withCause-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRB-Number ::= INTEGER (1..32, ...)

DRBsSubjectToDLDiscarding-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRBsSubjectToDLDiscarding-Item

DRBsSubjectToDLDiscarding-Item ::= SEQUENCE {

drbID DRB-ID,

dlCount DLCountChoice,

iE-Extension ProtocolExtensionContainer { { DRBsSubjectToDLDiscarding-Item-ExtIEs} } OPTIONAL,

...

}

DRBsSubjectToDLDiscarding-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsSubjectToEarlyStatusTransfer-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRBsSubjectToEarlyStatusTransfer-Item

DRBsSubjectToEarlyStatusTransfer-Item ::= SEQUENCE {

drbID DRB-ID,

dlCount DLCountChoice,

iE-Extension ProtocolExtensionContainer { { DRBsSubjectToEarlyStatusTransfer-Item-ExtIEs} } OPTIONAL,

...

}

DRBsSubjectToEarlyStatusTransfer-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsSubjectToStatusTransfer-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRBsSubjectToStatusTransfer-Item

DRBsSubjectToStatusTransfer-Item ::= SEQUENCE {

drbID DRB-ID,

pdcpStatusTransfer-UL DRBBStatusTransferChoice,

pdcpStatusTransfer-DL DRBBStatusTransferChoice,

iE-Extension ProtocolExtensionContainer { {DRBsSubjectToStatusTransfer-Item-ExtIEs} } OPTIONAL,

...

}

DRBsSubjectToStatusTransfer-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-OldQoSFlowMap-ULendmarkerexpected CRITICALITY reject EXTENSION QoSFlows-List PRESENCE optional },

...

}

DRBBStatusTransferChoice ::= CHOICE {

pdcp-sn-12bits DRBBStatusTransfer12bitsSN,

pdcp-sn-18bits DRBBStatusTransfer18bitsSN,

choice-extension ProtocolIE-Single-Container { {DRBBStatusTransferChoice-ExtIEs} }

}

DRBBStatusTransferChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

DRBBStatusTransfer12bitsSN ::= SEQUENCE {

receiveStatusofPDCPSDU BIT STRING (SIZE(1..2048)) OPTIONAL,

cOUNTValue COUNT-PDCP-SN12,

iE-Extension ProtocolExtensionContainer { {DRBBStatusTransfer12bitsSN-ExtIEs} } OPTIONAL,

...

}

DRBBStatusTransfer12bitsSN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBBStatusTransfer18bitsSN ::= SEQUENCE {

receiveStatusofPDCPSDU BIT STRING (SIZE(1..131072)) OPTIONAL,

cOUNTValue COUNT-PDCP-SN18,

iE-Extension ProtocolExtensionContainer { {DRBBStatusTransfer18bitsSN-ExtIEs} } OPTIONAL,

...

}

DRBBStatusTransfer18bitsSN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBToQoSFlowMapping-List ::= SEQUENCE (SIZE (1..maxnoofDRBs)) OF DRBToQoSFlowMapping-Item

DRBToQoSFlowMapping-Item ::= SEQUENCE {

drb-ID DRB-ID,

qosFlows-List QoSFlows-List,

rLC-Mode RLCMode OPTIONAL,

iE-Extension ProtocolExtensionContainer { {DRBToQoSFlowMapping-Item-ExtIEs} } OPTIONAL,

...

}

DRBToQoSFlowMapping-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DAPSRequestInfo CRITICALITY ignore EXTENSION DAPSRequestInfo PRESENCE optional },

...

}

DuplicationActivation ::= ENUMERATED {active, inactive, ...}

Dynamic5QIDescriptor ::= SEQUENCE {

priorityLevelQoS PriorityLevelQoS,

packetDelayBudget PacketDelayBudget,

packetErrorRate PacketErrorRate,

fiveQI FiveQI OPTIONAL,

delayCritical ENUMERATED {delay-critical, non-delay-critical, ...} OPTIONAL,

-- This IE shall be present if the *GBR QoS Flow Information* IE is present in the *QoS Flow Level QoS Parameters* IE.

averagingWindow AveragingWindow OPTIONAL,

-- This IE shall be present if the *GBR QoS Flow Information* IE is present in the *QoS Flow Level QoS Parameters* IE.

maximumDataBurstVolume MaximumDataBurstVolume OPTIONAL,

iE-Extension ProtocolExtensionContainer { {Dynamic5QIDescriptor-ExtIEs } } OPTIONAL,

...

}

Dynamic5QIDescriptor-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-ExtendedPacketDelayBudget CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional}|

{ ID id-CNPacketDelayBudgetDownlink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional}|

{ ID id-CNPacketDelayBudgetUplink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional},

...

}

-- E

E-RAB-ID ::= INTEGER (0..15, ...)

E-UTRAARFCN ::= INTEGER (0..maxEARFCN)

E-UTRA-Cell-Identity ::= BIT STRING (SIZE(28))

E-UTRA-CGI ::= SEQUENCE {

plmn-id PLMN-Identity,

e-utra-CI E-UTRA-Cell-Identity,

iE-Extension ProtocolExtensionContainer { {E-UTRA-CGI-ExtIEs} } OPTIONAL,

...

}

E-UTRA-CGI-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

E-UTRAFrequencyBandIndicator ::= INTEGER (1..256, ...)

E-UTRAMultibandInfoList ::= SEQUENCE (SIZE(1..maxnoofEUTRABands)) OF E-UTRAFrequencyBandIndicator

E-UTRAPCI ::= INTEGER (0..503, ...)

E-UTRAPRACHConfiguration ::= SEQUENCE {

rootSequenceIndex INTEGER (0..837),

zeroCorrelationIndex INTEGER (0..15),

highSpeedFlag ENUMERATED {true, false, ...},

prach-FreqOffset INTEGER (0..94),

prach-ConfigIndex INTEGER (0..63) OPTIONAL,

-- C-ifTDD: This IE shall be present if the EUTRA-Mode-Info IE in the Served Cell Information IE is set to the value "TDD" --

iE-Extensions ProtocolExtensionContainer { {E-UTRAPRACHConfiguration-ExtIEs} } OPTIONAL,

...

}

E-UTRAPRACHConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

E-UTRATransmissionBandwidth ::= ENUMERATED {bw6, bw15, bw25, bw50, bw75, bw100, ..., bw1}

EndpointIPAddressAndPort ::=SEQUENCE {

endpointIPAddress TransportLayerAddress,

portNumber PortNumber,

iE-Extensions ProtocolExtensionContainer { { EndpointIPAddressAndPort-ExtIEs} } OPTIONAL

}

EndpointIPAddressAndPort-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

EventTriggered ::= SEQUENCE {

loggedEventTriggeredConfig LoggedEventTriggeredConfig,

iE-Extensions ProtocolExtensionContainer { { EventTriggered-ExtIEs} } OPTIONAL,

...

}

EventTriggered-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

EventType ::= ENUMERATED {

report-upon-change-of-serving-cell,

report-UE-moving-presence-into-or-out-of-the-Area-of-Interest,

...,

report-upon-change-of-serving-cell-and-Area-of-Interest

}

EventTypeTrigger ::= CHOICE {

outOfCoverage ENUMERATED {true, ...},

eventL1 EventL1,

choice-Extensions ProtocolIE-Single-Container { {EventTypeTrigger-ExtIEs} }

}

EventTypeTrigger-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

EventL1 ::= SEQUENCE {

l1Threshold MeasurementThresholdL1LoggedMDT,

hysteresis Hysteresis,

timeToTrigger TimeToTrigger,

iE-Extensions ProtocolExtensionContainer { { EventL1-ExtIEs} } OPTIONAL,

...

}

EventL1-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

MeasurementThresholdL1LoggedMDT ::= CHOICE {

threshold-RSRP Threshold-RSRP,

threshold-RSRQ Threshold-RSRQ,

...

}

ExpectedActivityPeriod ::= INTEGER (1..30|40|50|60|80|100|120|150|180|181, ...)

ExpectedHOInterval ::= ENUMERATED {

sec15, sec30, sec60, sec90, sec120, sec180, long-time,

...

}

ExpectedIdlePeriod ::= INTEGER (1..30|40|50|60|80|100|120|150|180|181, ...)

ExpectedUEActivityBehaviour ::= SEQUENCE {

expectedActivityPeriod ExpectedActivityPeriod OPTIONAL,

expectedIdlePeriod ExpectedIdlePeriod OPTIONAL,

sourceOfUEActivityBehaviourInformation SourceOfUEActivityBehaviourInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ExpectedUEActivityBehaviour-ExtIEs} } OPTIONAL,

...

}

ExpectedUEActivityBehaviour-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ExpectedUEBehaviour ::= SEQUENCE {

expectedUEActivityBehaviour ExpectedUEActivityBehaviour OPTIONAL,

expectedHOInterval ExpectedHOInterval OPTIONAL,

expectedUEMobility ExpectedUEMobility OPTIONAL,

expectedUEMovingTrajectory ExpectedUEMovingTrajectory OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ExpectedUEBehaviour-ExtIEs} } OPTIONAL,

...

}

ExpectedUEBehaviour-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ExpectedUEMobility ::= ENUMERATED {

stationary,

mobile,

...

}

ExpectedUEMovingTrajectory ::= SEQUENCE (SIZE(1..maxnoofCellsUEMovingTrajectory)) OF ExpectedUEMovingTrajectoryItem

ExpectedUEMovingTrajectoryItem ::= SEQUENCE {

nGRAN-CGI GlobalNG-RANCell-ID,

timeStayedInCell INTEGER (0..4095) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ExpectedUEMovingTrajectoryItem-ExtIEs} } OPTIONAL,

...

}

ExpectedUEMovingTrajectoryItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SourceOfUEActivityBehaviourInformation ::= ENUMERATED {

subscription-information,

statistics,

...

}

ExtendedRATRestrictionInformation ::= SEQUENCE {

primaryRATRestriction BIT STRING (SIZE(8, ...)),

secondaryRATRestriction BIT STRING (SIZE(8, ...)),

iE-Extensions ProtocolExtensionContainer { {ExtendedRATRestrictionInformation-ExtIEs} } OPTIONAL,

...

}

ExtendedRATRestrictionInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ExtendedPacketDelayBudget ::= INTEGER (0..65535, ...)

ExtendedSliceSupportList ::= SEQUENCE (SIZE(1..maxnoofExtSliceItems)) OF S-NSSAI

ExtendedUEIdentityIndexValue ::= BIT STRING (SIZE(16))

ExtTLAs ::= SEQUENCE (SIZE(1..maxnoofExtTLAs)) OF ExtTLA-Item

ExtTLA-Item ::= SEQUENCE {

iPsecTLA TransportLayerAddress OPTIONAL,

gTPTransportLayerAddresses GTPTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ExtTLA-Item-ExtIEs} } OPTIONAL,

...

}

ExtTLA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GTPTLAs ::= SEQUENCE (SIZE(1.. maxnoofGTPTLAs)) OF GTPTLA-Item

GTPTLA-Item ::= SEQUENCE {

gTPTransportLayerAddresses TransportLayerAddress,

iE-Extensions ProtocolExtensionContainer { { GTPTLA-Item-ExtIEs } } OPTIONAL,

...

}

GTPTLA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- F

FiveGCMobilityRestrictionListContainer ::= OCTET STRING

-- This octets of the OCTET STRING contain the Mobility Restriction List IE as specified in TS 38.413 [5]. --

FiveQI ::= INTEGER (0..255, ...)

FrequencyShift7p5khz ::= ENUMERATED {false, true, ...}

-- G

GBRQoSFlowInfo ::= SEQUENCE {

maxFlowBitRateDL BitRate,

maxFlowBitRateUL BitRate,

guaranteedFlowBitRateDL BitRate,

guaranteedFlowBitRateUL BitRate,

notificationControl ENUMERATED {notification-requested, ...} OPTIONAL,

maxPacketLossRateDL PacketLossRate OPTIONAL,

maxPacketLossRateUL PacketLossRate OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {GBRQoSFlowInfo-ExtIEs} } OPTIONAL,

...

}

GBRQoSFlowInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-AlternativeQoSParaSetList CRITICALITY ignore EXTENSION AlternativeQoSParaSetList PRESENCE optional },

...

}

GlobalgNB-ID ::= SEQUENCE {

plmn-id PLMN-Identity,

gnb-id GNB-ID-Choice,

iE-Extensions ProtocolExtensionContainer { {GlobalgNB-ID-ExtIEs} } OPTIONAL,

...

}

GlobalgNB-ID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GNB-ID-Choice ::= CHOICE {

gnb-ID BIT STRING (SIZE(22..32)),

choice-extension ProtocolIE-Single-Container { {GNB-ID-Choice-ExtIEs} }

}

GNB-ID-Choice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

GNB-RadioResourceStatus ::= SEQUENCE {

ssbAreaRadioResourceStatus-List SSBAreaRadioResourceStatus-List,

iE-Extensions ProtocolExtensionContainer { { GNB-RadioResourceStatus-ExtIEs} } OPTIONAL,

...

}

GNB-RadioResourceStatus-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GlobalCell-ID ::= SEQUENCE {

plmn-id PLMN-Identity,

cell-type Cell-Type-Choice,

iE-Extensions ProtocolExtensionContainer { { GlobalCell-ID-ExtIEs} } OPTIONAL,

...

}

GlobalCell-ID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GlobalngeNB-ID ::= SEQUENCE {

plmn-id PLMN-Identity,

enb-id ENB-ID-Choice,

iE-Extensions ProtocolExtensionContainer { {GlobaleNB-ID-ExtIEs} } OPTIONAL,

...

}

GlobaleNB-ID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ENB-ID-Choice ::= CHOICE {

enb-ID-macro BIT STRING (SIZE(20)),

enb-ID-shortmacro BIT STRING (SIZE(18)),

enb-ID-longmacro BIT STRING (SIZE(21)),

choice-extension ProtocolIE-Single-Container { {ENB-ID-Choice-ExtIEs} }

}

ENB-ID-Choice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

GlobalNG-RANCell-ID ::= SEQUENCE {

plmn-id PLMN-Identity,

ng-RAN-Cell-id NG-RAN-Cell-Identity,

iE-Extensions ProtocolExtensionContainer { {GlobalNG-RANCell-ID-ExtIEs} } OPTIONAL,

...

}

GlobalNG-RANCell-ID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GlobalNG-RANNode-ID ::= CHOICE {

gNB GlobalgNB-ID,

ng-eNB GlobalngeNB-ID,

choice-extension ProtocolIE-Single-Container { {GlobalNG-RANNode-ID-ExtIEs} }

}

GlobalNG-RANNode-ID-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

GTP-TEID ::= OCTET STRING (SIZE(4))

GTPtunnelTransportLayerInformation ::= SEQUENCE {

tnl-address TransportLayerAddress,

gtp-teid GTP-TEID,

iE-Extensions ProtocolExtensionContainer { {GTPtunnelTransportLayerInformation-ExtIEs} } OPTIONAL,

...

}

GTPtunnelTransportLayerInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

GUAMI ::= SEQUENCE {

plmn-ID PLMN-Identity,

amf-region-id BIT STRING (SIZE (8)),

amf-set-id BIT STRING (SIZE (10)),

amf-pointer BIT STRING (SIZE (6)),

iE-Extensions ProtocolExtensionContainer { {GUAMI-ExtIEs} } OPTIONAL,

...

}

GUAMI-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- H

HandoverReportType ::= ENUMERATED {

hoTooEarly,

hoToWrongCell,

intersystempingpong,

...

}

Hysteresis ::= INTEGER (0..30)

-- I

IABNodeIndication ::= ENUMERATED {true,...}

ImmediateMDT-EUTRA ::= OCTET STRING

ImmediateMDT-NR ::= SEQUENCE {

measurementsToActivate MeasurementsToActivate,

m1Configuration M1Configuration OPTIONAL,

m4Configuration M4Configuration OPTIONAL,

m5Configuration M5Configuration OPTIONAL,

mDT-Location-Info MDT-Location-Info OPTIONAL,

m6Configuration M6Configuration OPTIONAL,

m7Configuration M7Configuration OPTIONAL,

bluetoothMeasurementConfiguration BluetoothMeasurementConfiguration OPTIONAL,

wLANMeasurementConfiguration WLANMeasurementConfiguration OPTIONAL,

sensorMeasurementConfiguration SensorMeasurementConfiguration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ImmediateMDT-NR-ExtIEs} } OPTIONAL,

...

}

ImmediateMDT-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

InitiatingCondition-FailureIndication ::= CHOICE {

rRCReestab RRCReestab-initiated,

rRCSetup RRCSetup-initiated,

choice-extension ProtocolIE-Single-Container { {InitiatingCondition-FailureIndication-ExtIEs} }

}

InitiatingCondition-FailureIndication-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

IntendedTDD-DL-ULConfiguration-NR ::= SEQUENCE {

nrscs NRSCS,

nrCyclicPrefix NRCyclicPrefix,

nrDL-ULTransmissionPeriodicity NRDL-ULTransmissionPeriodicity,

slotConfiguration-List SlotConfiguration-List,

iE-Extensions ProtocolExtensionContainer { {IntendedTDD-DL-ULConfiguration-NR-ExtIEs} } OPTIONAL,

...

}

IntendedTDD-DL-ULConfiguration-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

InterfaceInstanceIndication ::= INTEGER (0..255, ...)

InterfacesToTrace ::= BIT STRING { ng-c (0), x-nc (1), uu (2), f1-c (3), e1 (4)} (SIZE(8))

I-RNTI ::= CHOICE {

i-RNTI-full BIT STRING (SIZE(40)),

i-RNTI-short BIT STRING (SIZE(24)),

choice-extension ProtocolIE-Single-Container { {I-RNTI-ExtIEs} }

}

I-RNTI-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

-- J

-- K

-- L

LastVisitedCell-Item ::= CHOICE {

nG-RAN-Cell LastVisitedNGRANCellInformation,

e-UTRAN-Cell LastVisitedEUTRANCellInformation,

uTRAN-Cell LastVisitedUTRANCellInformation,

gERAN-Cell LastVisitedGERANCellInformation,

choice-extension ProtocolIE-Single-Container { { LastVisitedCell-Item-ExtIEs} }

}

LastVisitedCell-Item-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

LastVisitedEUTRANCellInformation ::= OCTET STRING

LastVisitedGERANCellInformation ::= OCTET STRING

LastVisitedNGRANCellInformation ::= OCTET STRING

LastVisitedUTRANCellInformation ::= OCTET STRING

LCID ::= INTEGER (1..32, ...)

Links-to-log ::= ENUMERATED {uplink, downlink, both-uplink-and-downlink, ...}

ListOfCells ::= SEQUENCE (SIZE(1..maxnoofCellsinAoI)) OF CellsinAoI-Item

CellsinAoI-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

ng-ran-cell-id NG-RAN-Cell-Identity,

iE-Extensions ProtocolExtensionContainer { {CellsinAoI-Item-ExtIEs} } OPTIONAL,

...

}

CellsinAoI-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ListOfRANNodesinAoI ::= SEQUENCE (SIZE(1.. maxnoofRANNodesinAoI)) OF GlobalNG-RANNodesinAoI-Item

GlobalNG-RANNodesinAoI-Item ::= SEQUENCE {

global-NG-RAN-Node-ID GlobalNG-RANNode-ID,

iE-Extensions ProtocolExtensionContainer { {GlobalNG-RANNodesinAoI-Item-ExtIEs} } OPTIONAL,

...

}

GlobalNG-RANNodesinAoI-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ListOfTAIsinAoI ::= SEQUENCE (SIZE(1..maxnoofTAIsinAoI)) OF TAIsinAoI-Item

TAIsinAoI-Item ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

tAC TAC,

iE-Extensions ProtocolExtensionContainer { {TAIsinAoI-Item-ExtIEs} } OPTIONAL,

...

}

TAIsinAoI-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

LocationInformationSNReporting ::= ENUMERATED {

pSCell,

...

}

LocationReportingInformation ::= SEQUENCE {

eventType EventType,

reportArea ReportArea,

areaOfInterest AreaOfInterestInformation OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {LocationReportingInformation-ExtIEs} } OPTIONAL,

...

}

LocationReportingInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

{ ID id-AdditionLocationInformation CRITICALITY ignore EXTENSION AdditionLocationInformation PRESENCE optional},

...

}

LoggedMDT-EUTRA ::= SEQUENCE {

loggingInterval LoggingInterval,

loggingDuration LoggingDuration,

bluetoothMeasurementConfiguration BluetoothMeasurementConfiguration OPTIONAL,

wLANMeasurementConfiguration WLANMeasurementConfiguration OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {LoggedMDT-EUTRA-ExtIEs} } OPTIONAL,

...

}

LoggedMDT-EUTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

LoggedEventTriggeredConfig ::= SEQUENCE {

eventTypeTrigger EventTypeTrigger,

iE-Extensions ProtocolExtensionContainer { { LoggedEventTriggeredConfig-ExtIEs} } OPTIONAL,

...

}

LoggedEventTriggeredConfig-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

LoggedMDT-NR ::= SEQUENCE {

loggingInterval LoggingInterval,

loggingDuration LoggingDuration,

reportType ReportType,

bluetoothMeasurementConfiguration BluetoothMeasurementConfiguration OPTIONAL,

wLANMeasurementConfiguration WLANMeasurementConfiguration OPTIONAL,

sensorMeasurementConfiguration SensorMeasurementConfiguration OPTIONAL,

areaScopeOfNeighCellsList AreaScopeOfNeighCellsList OPTIONAL, iE-Extensions ProtocolExtensionContainer { {LoggedMDT-NR-ExtIEs} } OPTIONAL,

...

}

LoggedMDT-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

LoggingInterval ::= ENUMERATED { ms320, ms640, ms1280, ms2560, ms5120, ms10240, ms20480, ms30720, ms40960, ms61440}

LoggingDuration ::= ENUMERATED {m10, m20, m40, m60, m90, m120}

LowerLayerPresenceStatusChange ::= ENUMERATED {

release-lower-layers,

re-establish-lower-layers,

...,

suspend-lower-layers,

resume-lower-layers

}

LTEV2XServicesAuthorized ::= SEQUENCE {

vehicleUE VehicleUE OPTIONAL,

pedestrianUE PedestrianUE OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {LTEV2XServicesAuthorized-ExtIEs} } OPTIONAL,

...

}

LTEV2XServicesAuthorized-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

LTEUESidelinkAggregateMaximumBitRate ::= SEQUENCE {

uESidelinkAggregateMaximumBitRate BitRate,

iE-Extensions ProtocolExtensionContainer { {LTEUESidelinkAggregateMaximumBitRate-ExtIEs} } OPTIONAL,

...

}

LTEUESidelinkAggregateMaximumBitRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- M

M1Configuration ::= SEQUENCE {

m1reportingTrigger M1ReportingTrigger,

m1thresholdeventA2 M1ThresholdEventA2 OPTIONAL,

-- Included in case of event-triggered, or event-triggered periodic reporting for measurement M1

m1periodicReporting M1PeriodicReporting OPTIONAL,

-- Included in case of periodic or event-triggered periodic reporting

iE-Extensions ProtocolExtensionContainer { { M1Configuration-ExtIEs} } OPTIONAL,

...

}

M1Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M1PeriodicReporting ::= SEQUENCE {

reportInterval ReportIntervalMDT,

reportAmount ReportAmountMDT,

iE-Extensions ProtocolExtensionContainer { { M1PeriodicReporting-ExtIEs} } OPTIONAL,

...

}

M1PeriodicReporting-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M1ReportingTrigger ::= ENUMERATED{

periodic,

a2eventtriggered,

a2eventtriggered-periodic,

...

}

M1ThresholdEventA2 ::= SEQUENCE {

measurementThreshold MeasurementThresholdA2,

iE-Extensions ProtocolExtensionContainer { { M1ThresholdEventA2-ExtIEs} } OPTIONAL,

...

}

M1ThresholdEventA2-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M4Configuration ::= SEQUENCE {

m4period M4period,

m4-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M4Configuration-ExtIEs} } OPTIONAL,

...

}

M4Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M4period ::= ENUMERATED {ms1024, ms2048, ms5120, ms10240, min1, ... }

M5Configuration ::= SEQUENCE {

m5period M5period,

m5-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M5Configuration-ExtIEs} } OPTIONAL,

...

}

M5Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M5period ::= ENUMERATED {ms1024, ms2048, ms5120, ms10240, min1, ... }

M6Configuration ::= SEQUENCE {

m6report-Interval M6report-Interval,

m6-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M6Configuration-ExtIEs} } OPTIONAL,

...

}

M6Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M6report-Interval ::= ENUMERATED { ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, ms20480, ms40960, min1, min6, min12, min30,... }

M7Configuration ::= SEQUENCE {

m7period M7period,

m7-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M7Configuration-ExtIEs} } OPTIONAL,

...

}

M7Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

M7period ::= INTEGER(1..60, ...)

MAC-I ::= BIT STRING (SIZE(16))

MaskedIMEISV ::= BIT STRING (SIZE(64))

MaxCHOpreparations ::= INTEGER (1..8, ...)

MaximumDataBurstVolume ::= INTEGER (0..4095, ..., 4096.. 2000000)

MaximumIPdatarate ::= SEQUENCE {

maxIPrate-UL MaxIPrate,

iE-Extensions ProtocolExtensionContainer { {MaximumIPdatarate-ExtIEs} } OPTIONAL,

...

}

MaximumIPdatarate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-MaxIPrate-DL CRITICALITY ignore EXTENSION MaxIPrate PRESENCE optional},

...

}

MaxIPrate ::= ENUMERATED {

bitrate64kbs,

max-UErate,

...

}

MBSFNControlRegionLength ::= INTEGER (0..3)

MBSFNSubframeAllocation-E-UTRA ::= CHOICE {

oneframe BIT STRING (SIZE(6)),

fourframes BIT STRING (SIZE(24)),

choice-extension ProtocolIE-Single-Container { {MBSFNSubframeAllocation-E-UTRA-ExtIEs} }

}

MBSFNSubframeAllocation-E-UTRA-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

MBSFNSubframeInfo-E-UTRA ::= SEQUENCE (SIZE(1..maxnoofMBSFNEUTRA)) OF MBSFNSubframeInfo-E-UTRA-Item

MBSFNSubframeInfo-E-UTRA-Item ::= SEQUENCE {

radioframeAllocationPeriod ENUMERATED{n1,n2,n4,n8,n16,n32,...},

radioframeAllocationOffset INTEGER (0..7, ...),

subframeAllocation MBSFNSubframeAllocation-E-UTRA,

iE-Extensions ProtocolExtensionContainer { {MBSFNSubframeInfo-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

MBSFNSubframeInfo-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

MDT-Activation ::= ENUMERATED {

immediate-MDT-only,

immediate-MDT-and-Trace,

logged-MDT-only,

...

}

MDT-Configuration ::= SEQUENCE {

mDT-Configuration-NR MDT-Configuration-NR OPTIONAL,

mDT-Configuration-EUTRA MDT-Configuration-EUTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-ExtIEs} } OPTIONAL,

...

}

MDT-Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

MDT-Configuration-NR ::= SEQUENCE {

mdt-Activation MDT-Activation,

areaScopeOfMDT-NR AreaScopeOfMDT-NR OPTIONAL,

mDTMode-NR MDTMode-NR,

signallingBasedMDTPLMNList MDTPLMNList,

iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-NR-ExtIEs} } OPTIONAL,

...

}

MDT-Configuration-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

MDT-Configuration-EUTRA ::= SEQUENCE {

mdt-Activation MDT-Activation,

areaScopeOfMDT-EUTRA AreaScopeOfMDT-EUTRA OPTIONAL,

mDTMode-EUTRA MDTMode-EUTRA,

signallingBasedMDTPLMNList MDTPLMNList,

iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-EUTRA-ExtIEs} } OPTIONAL,

...

}

MDT-Configuration-EUTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

MDT-Location-Info ::= BIT STRING (SIZE (8))

MDTPLMNList ::= SEQUENCE (SIZE(1..maxnoofMDTPLMNs)) OF PLMN-Identity

MDTMode-NR ::= CHOICE {

immediateMDT ImmediateMDT-NR,

loggedMDT LoggedMDT-NR,

...,

mDTMode-NR-Extension MDTMode-NR-Extension

}

MDTMode-NR-Extension ::= ProtocolIE-Single-Container {{ MDTMode-NR-ExtensionIE }}

MDTMode-NR-ExtensionIE XNAP-PROTOCOL-IES ::= {

...

}

MDTMode-EUTRA ::= CHOICE {

immediateMDT ImmediateMDT-EUTRA,

loggedMDT LoggedMDT-EUTRA,

...,

mDTMode-EUTRA-Extension MDTMode-EUTRA-Extension

}

MDTMode-EUTRA-Extension ::= ProtocolIE-Single-Container {{ MDTMode-EUTRA-ExtensionIE }}

MDTMode-EUTRA-ExtensionIE XNAP-PROTOCOL-IES ::= {

...

}

MeasurementsToActivate ::= BIT STRING (SIZE (8))

MeasurementThresholdA2 ::= CHOICE {

threshold-RSRP Threshold-RSRP,

threshold-RSRQ Threshold-RSRQ,

threshold-SINR Threshold-SINR,

choice-extension ProtocolIE-Single-Container { { MeasurementThresholdA2-ExtIEs} }

}

MeasurementThresholdA2-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

Measurement-ID ::= INTEGER (1..4095,...)

MobilityInformation ::= BIT STRING (SIZE(32))

MobilityParametersModificationRange ::= SEQUENCE {

handoverTriggerChangeLowerLimit INTEGER (-20..20),

handoverTriggerChangeUpperLimit INTEGER (-20..20),

...

}

MobilityParametersInformation ::= SEQUENCE {

handoverTriggerChange INTEGER (-20..20),

...

}

MobilityRestrictionList ::= SEQUENCE {

serving-PLMN PLMN-Identity,

equivalent-PLMNs SEQUENCE (SIZE(1..maxnoofEPLMNs)) OF PLMN-Identity OPTIONAL,

rat-Restrictions RAT-RestrictionsList OPTIONAL,

forbiddenAreaInformation ForbiddenAreaList OPTIONAL,

serviceAreaInformation ServiceAreaList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {MobilityRestrictionList-ExtIEs} } OPTIONAL,

...

}

MobilityRestrictionList-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

{ ID id-LastE-UTRANPLMNIdentity CRITICALITY ignore EXTENSION PLMN-Identity PRESENCE optional }|

{ ID id-CNTypeRestrictionsForServing CRITICALITY ignore EXTENSION CNTypeRestrictionsForServing PRESENCE optional }|

{ ID id-CNTypeRestrictionsForEquivalent CRITICALITY ignore EXTENSION CNTypeRestrictionsForEquivalent PRESENCE optional }|

{ ID id-NPNMobilityInformation CRITICALITY reject EXTENSION NPNMobilityInformation PRESENCE optional },

...

}

CNTypeRestrictionsForEquivalent ::= SEQUENCE (SIZE(1..maxnoofEPLMNs)) OF CNTypeRestrictionsForEquivalentItem

CNTypeRestrictionsForEquivalentItem ::= SEQUENCE {

plmn-Identity PLMN-Identity,

cn-Type ENUMERATED {epc-forbidden, fiveGC-forbidden, ...},

iE-Extensions ProtocolExtensionContainer { {CNTypeRestrictionsForEquivalentItem-ExtIEs} } OPTIONAL,

...

}

CNTypeRestrictionsForEquivalentItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

CNTypeRestrictionsForServing ::= ENUMERATED {

epc-forbidden,

...

}

RAT-RestrictionsList ::= SEQUENCE (SIZE(1..maxnoofPLMNs)) OF RAT-RestrictionsItem

RAT-RestrictionsItem ::= SEQUENCE {

plmn-Identity PLMN-Identity,

rat-RestrictionInformation RAT-RestrictionInformation,

iE-Extensions ProtocolExtensionContainer { {RAT-RestrictionsItem-ExtIEs} } OPTIONAL,

...

}

RAT-RestrictionsItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

{ ID id-ExtendedRATRestrictionInformation CRITICALITY ignore EXTENSION ExtendedRATRestrictionInformation PRESENCE optional},

...

}

RAT-RestrictionInformation ::= BIT STRING {e-UTRA (0),nR (1)} (SIZE(8, ...))

ForbiddenAreaList ::= SEQUENCE (SIZE(1..maxnoofPLMNs)) OF ForbiddenAreaItem

ForbiddenAreaItem ::= SEQUENCE {

plmn-Identity PLMN-Identity,

forbidden-TACs SEQUENCE (SIZE(1..maxnoofForbiddenTACs)) OF TAC,

iE-Extensions ProtocolExtensionContainer { {ForbiddenAreaItem-ExtIEs} } OPTIONAL,

...

}

ForbiddenAreaItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

ServiceAreaList ::= SEQUENCE (SIZE(1..maxnoofPLMNs)) OF ServiceAreaItem

ServiceAreaItem ::= SEQUENCE {

plmn-Identity PLMN-Identity,

allowed-TACs-ServiceArea SEQUENCE (SIZE(1..maxnoofAllowedAreas)) OF TAC OPTIONAL,

not-allowed-TACs-ServiceArea SEQUENCE (SIZE(1..maxnoofAllowedAreas)) OF TAC OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServiceAreaItem-ExtIEs} } OPTIONAL,

...

}

ServiceAreaItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

MR-DC-ResourceCoordinationInfo ::= SEQUENCE {

ng-RAN-Node-ResourceCoordinationInfo NG-RAN-Node-ResourceCoordinationInfo,

iE-Extension ProtocolExtensionContainer { {MR-DC-ResourceCoordinationInfo-ExtIEs}} OPTIONAL,

...

}

MR-DC-ResourceCoordinationInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NG-RAN-Node-ResourceCoordinationInfo ::= CHOICE {

eutra-resource-coordination-info E-UTRA-ResourceCoordinationInfo,

nr-resource-coordination-info NR-ResourceCoordinationInfo

}

E-UTRA-ResourceCoordinationInfo ::= SEQUENCE {

e-utra-cell E-UTRA-CGI,

ul-coordination-info BIT STRING (SIZE (6..4400)),

dl-coordination-info BIT STRING (SIZE (6..4400)) OPTIONAL,

nr-cell NR-CGI OPTIONAL,

e-utra-coordination-assistance-info E-UTRA-CoordinationAssistanceInfo OPTIONAL,

iE-Extension ProtocolExtensionContainer { {E-UTRA-ResourceCoordinationInfo-ExtIEs} } OPTIONAL,

...

}

E-UTRA-ResourceCoordinationInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

E-UTRA-CoordinationAssistanceInfo ::= ENUMERATED {coordination-not-required, ...}

NR-ResourceCoordinationInfo ::= SEQUENCE {

nr-cell NR-CGI,

ul-coordination-info BIT STRING (SIZE (6..4400)),

dl-coordination-info BIT STRING (SIZE (6..4400)) OPTIONAL,

e-utra-cell E-UTRA-CGI OPTIONAL,

nr-coordination-assistance-info NR-CoordinationAssistanceInfo OPTIONAL,

iE-Extension ProtocolExtensionContainer { {NR-ResourceCoordinationInfo-ExtIEs} } OPTIONAL,

...

}

NR-ResourceCoordinationInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NR-CoordinationAssistanceInfo ::= ENUMERATED {coordination-not-required, ...}

MessageOversizeNotification ::= SEQUENCE {

maximumCellListSize MaximumCellListSize,

iE-Extension ProtocolExtensionContainer { {MessageOversizeNotification-ExtIEs}} OPTIONAL,

...

}

MessageOversizeNotification-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

MaximumCellListSize ::= INTEGER(1..16384, ...)

-- N

NBIoT-UL-DL-AlignmentOffset ::= ENUMERATED {

khz-7dot5,

khz0,

khz7dot5,

...

}

NE-DC-TDM-Pattern ::= SEQUENCE {

subframeAssignment ENUMERATED {sa0,sa1,sa2,sa3,sa4,sa5,sa6},

harqOffset INTEGER (0..9),

iE-Extension ProtocolExtensionContainer { {NE-DC-TDM-Pattern-ExtIEs}} OPTIONAL,

...

}

NE-DC-TDM-Pattern-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NeighbourInformation-E-UTRA ::= SEQUENCE (SIZE(1..maxnoofNeighbours)) OF NeighbourInformation-E-UTRA-Item

NeighbourInformation-E-UTRA-Item ::= SEQUENCE {

e-utra-PCI E-UTRAPCI,

e-utra-cgi E-UTRA-CGI,

earfcn E-UTRAARFCN,

tac TAC,

ranac RANAC OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {NeighbourInformation-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

NeighbourInformation-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

NeighbourInformation-NR ::= SEQUENCE (SIZE(1..maxnoofNeighbours)) OF NeighbourInformation-NR-Item

NeighbourInformation-NR-Item ::= SEQUENCE {

nr-PCI NRPCI,

nr-cgi NR-CGI,

tac TAC,

ranac RANAC OPTIONAL,

nr-mode-info NeighbourInformation-NR-ModeInfo,

connectivitySupport Connectivity-Support,

measurementTimingConfiguration OCTET STRING,

iE-Extensions ProtocolExtensionContainer { {NeighbourInformation-NR-Item-ExtIEs} } OPTIONAL,

...

}

NeighbourInformation-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

...

}

NeighbourInformation-NR-ModeInfo ::= CHOICE {

fdd-info NeighbourInformation-NR-ModeFDDInfo,

tdd-info NeighbourInformation-NR-ModeTDDInfo,

choice-extension ProtocolIE-Single-Container { {NeighbourInformation-NR-ModeInfo-ExtIEs} }

}

NeighbourInformation-NR-ModeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NeighbourInformation-NR-ModeFDDInfo ::= SEQUENCE {

ul-NR-FreqInfo NRFrequencyInfo,

dl-NR-FequInfo NRFrequencyInfo,

ie-Extensions ProtocolExtensionContainer { {NeighbourInformation-NR-ModeFDDInfo-ExtIEs} } OPTIONAL,

...

}

NeighbourInformation-NR-ModeFDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NeighbourInformation-NR-ModeTDDInfo ::= SEQUENCE {

nr-FreqInfo NRFrequencyInfo,

ie-Extensions ProtocolExtensionContainer { {NeighbourInformation-NR-ModeTDDInfo-ExtIEs} } OPTIONAL,

...

}

NeighbourInformation-NR-ModeTDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NID ::= BIT STRING (SIZE(44))

NRCarrierList ::= SEQUENCE (SIZE(1..maxnoofNRSCSs)) OF NRCarrierItem

NRCarrierItem ::= SEQUENCE {

carrierSCS NRSCS,

offsetToCarrier INTEGER (0..2199, ...),

carrierBandwidth INTEGER (0..maxnoofPhysicalResourceBlocks, ...),

iE-Extension ProtocolExtensionContainer { {NRCarrierItem-ExtIEs} } OPTIONAL,

...

}

NRCarrierItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NRCellPRACHConfig ::= OCTET STRING

NG-RAN-Cell-Identity ::= CHOICE {

nr NR-Cell-Identity,

e-utra E-UTRA-Cell-Identity,

choice-extension ProtocolIE-Single-Container { {NG-RAN-Cell-Identity-ExtIEs} }

}

NG-RAN-Cell-Identity-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NG-RAN-CellPCI ::= CHOICE {

nr NRPCI,

e-utra E-UTRAPCI,

choice-extension ProtocolIE-Single-Container { {NG-RAN-CellPCI-ExtIEs} }

}

NG-RAN-CellPCI-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NG-RANnodeUEXnAPID ::= INTEGER (0.. 4294967295)

NumberofActiveUEs::= INTEGER(0..16777215, ...)

NoofRRCConnections ::= INTEGER (1..65536,...)

NonDynamic5QIDescriptor ::= SEQUENCE {

fiveQI FiveQI,

priorityLevelQoS PriorityLevelQoS OPTIONAL,

averagingWindow AveragingWindow OPTIONAL,

maximumDataBurstVolume MaximumDataBurstVolume OPTIONAL,

iE-Extension ProtocolExtensionContainer { {NonDynamic5QIDescriptor-ExtIEs } } OPTIONAL,

...

}

NonDynamic5QIDescriptor-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CNPacketDelayBudgetDownlink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional}|

{ ID id-CNPacketDelayBudgetUplink CRITICALITY ignore EXTENSION ExtendedPacketDelayBudget PRESENCE optional},

...

}

NRARFCN ::= INTEGER (0.. maxNRARFCN)

NG-eNB-RadioResourceStatus ::= SEQUENCE {

dL-GBR-PRB-usage DL-GBR-PRB-usage,

uL-GBR-PRB-usage UL-GBR-PRB-usage,

dL-non-GBR-PRB-usage DL-non-GBR-PRB-usage,

uL-non-GBR-PRB-usage UL-non-GBR-PRB-usage,

dL-Total-PRB-usage DL-Total-PRB-usage,

uL-Total-PRB-usage UL-Total-PRB-usage,

iE-Extensions ProtocolExtensionContainer { { NG-eNB-RadioResourceStatus-ExtIEs} } OPTIONAL,

...

}

NG-eNB-RadioResourceStatus-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION DL-scheduling-PDCCH-CCE-usage PRESENCE optional}|

{ ID id-UL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION UL-scheduling-PDCCH-CCE-usage PRESENCE optional},

...

}

DL-scheduling-PDCCH-CCE-usage ::= INTEGER (0.. 100)

UL-scheduling-PDCCH-CCE-usage ::= INTEGER (0.. 100)

TNLCapacityIndicator ::= SEQUENCE {

dLTNLOfferedCapacity OfferedCapacity,

dLTNLAvailableCapacity AvailableCapacity,

uLTNLOfferedCapacity OfferedCapacity,

uLTNLAvailableCapacity AvailableCapacity,

iE-Extensions ProtocolExtensionContainer { { TNLCapacityIndicator-ExtIEs} } OPTIONAL,

...

}

TNLCapacityIndicator-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPN-Broadcast-Information ::= CHOICE {

snpn-Information NPN-Broadcast-Information-SNPN,

pni-npn-Information NPN-Broadcast-Information-PNI-NPN,

choice-extension ProtocolIE-Single-Container { {NPN-Broadcast-Information-ExtIEs} }

}

NPN-Broadcast-Information-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NPN-Broadcast-Information-SNPN ::= SEQUENCE {

broadcastSNPNID-List BroadcastSNPNID-List,

iE-Extension ProtocolExtensionContainer { {NPN-Broadcast-Information-SNPN-ExtIEs} } OPTIONAL,

...

}

NPN-Broadcast-Information-SNPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPN-Broadcast-Information-PNI-NPN ::= SEQUENCE {

broadcastPNI-NPN-ID-Information BroadcastPNI-NPN-ID-Information,

iE-Extension ProtocolExtensionContainer { {NPN-Broadcast-Information-PNI-NPN-ExtIEs} } OPTIONAL,

...

}

NPN-Broadcast-Information-PNI-NPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPNMobilityInformation::= CHOICE {

snpn-mobility-information NPNMobilityInformation-SNPN,

pni-npn-mobility-information NPNMobilityInformation-PNI-NPN,

choice-extension ProtocolIE-Single-Container { {NPNMobilityInformation-ExtIEs} }

}

NPNMobilityInformation-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NPNMobilityInformation-SNPN ::= SEQUENCE {

serving-NID NID,

iE-Extension ProtocolExtensionContainer { {NPNMobilityInformation-SNPN-ExtIEs} } OPTIONAL,

...

}

NPNMobilityInformation-SNPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPNMobilityInformation-PNI-NPN ::= SEQUENCE {

allowedPNI-NPN-ID-List AllowedPNI-NPN-ID-List,

iE-Extension ProtocolExtensionContainer { {NPNMobilityInformation-PNI-NPN-ExtIEs} } OPTIONAL,

...

}

NPNMobilityInformation-PNI-NPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPNPagingAssistanceInformation ::= CHOICE {

pni-npn-Information NPNPagingAssistanceInformation-PNI-NPN,

choice-extension ProtocolIE-Single-Container { {NPNPagingAssistanceInformation-ExtIEs} }

}

NPNPagingAssistanceInformation-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NPNPagingAssistanceInformation-PNI-NPN ::= SEQUENCE {

allowedPNI-NPN-ID-List AllowedPNI-NPN-ID-List,

iE-Extension ProtocolExtensionContainer { {NPNPagingAssistanceInformation-PNI-NPN-ExtIEs} } OPTIONAL,

...

}

NPNPagingAssistanceInformation-PNI-NPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPN-Support ::= CHOICE {

sNPN NPN-Support-SNPN,

choice-Extensions ProtocolIE-Single-Container { {NPN-Support-ExtIEs} }

}

NPN-Support-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NPN-Support-SNPN ::= SEQUENCE {

nid NID,

ie-Extension ProtocolExtensionContainer { {NPN-Support-SNPN-ExtIEs} } OPTIONAL,

...

}

NPN-Support-SNPN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPRACHConfiguration::= SEQUENCE {

fdd-or-tdd CHOICE {

fdd NPRACHConfiguration-FDD,

tdd NPRACHConfiguration-TDD,

choice-extension ProtocolIE-Single-Container { { FDD-or-TDD-in-NPRACHConfiguration-Choice-ExtIEs} }

},

iE-Extensions ProtocolExtensionContainer { { NPRACHConfiguration-ExtIEs} } OPTIONAL,

...

}

NPRACHConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

FDD-or-TDD-in-NPRACHConfiguration-Choice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NPRACHConfiguration-FDD::= SEQUENCE {

nprach-CP-length NPRACH-CP-Length,

anchorCarrier-NPRACHConfig OCTET STRING,

anchorCarrier-EDT-NPRACHConfig OCTET STRING OPTIONAL,

anchorCarrier-Format2-NPRACHConfig OCTET STRING OPTIONAL,

anchorCarrier-Format2-EDT-NPRACHConfig OCTET STRING OPTIONAL,

non-anchorCarrier-NPRACHConfig OCTET STRING OPTIONAL,

non-anchorCarrier-Format2-NPRACHConfig OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NPRACHConfiguration-FDD-ExtIEs} } OPTIONAL,

...

}

NPRACHConfiguration-FDD-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPRACHConfiguration-TDD::= SEQUENCE {

nprach-preambleFormat NPRACH-preambleFormat,

anchorCarrier-NPRACHConfigTDD OCTET STRING,

non-anchorCarrierFequencyConfiglist Non-AnchorCarrierFrequencylist OPTIONAL,

non-anchorCarrier-NPRACHConfigTDD OCTET STRING OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { NPRACHConfiguration-TDD-ExtIEs} } OPTIONAL,

...

}

NPRACHConfiguration-TDD-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NPRACH-CP-Length::= ENUMERATED {

us66dot7,

us266dot7,

...

}

NPRACH-preambleFormat::= ENUMERATED {fmt0,fmt1,fmt2,fmt0a,fmt1a,...}

Non-AnchorCarrierFrequencylist ::= SEQUENCE (SIZE(1..maxnoofNonAnchorCarrierFreqConfig)) OF

SEQUENCE {

non-anchorCarrierFrquency OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { Non-AnchorCarrierFrequencylist-ExtIEs} } OPTIONAL,

...

}

Non-AnchorCarrierFrequencylist-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NR-Cell-Identity ::= BIT STRING (SIZE (36))

NG-RAN-Cell-Identity-ListinRANPagingArea ::= SEQUENCE (SIZE (1..maxnoofCellsinRNA)) OF NG-RAN-Cell-Identity

NR-CGI ::= SEQUENCE {

plmn-id PLMN-Identity,

nr-CI NR-Cell-Identity,

iE-Extension ProtocolExtensionContainer { {NR-CGI-ExtIEs} } OPTIONAL,

...

}

NR-CGI-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NRCyclicPrefix ::= ENUMERATED {normal, extended, ...}

NRDL-ULTransmissionPeriodicity ::= ENUMERATED {ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms3, ms4, ms5, ms10, ms20, ms40, ms60, ms80, ms100, ms120, ms140, ms160, ...}

NRFrequencyBand ::= INTEGER (1..1024, ...)

NRFrequencyBand-List ::= SEQUENCE (SIZE(1..maxnoofNRCellBands)) OF NRFrequencyBandItem

NRFrequencyBandItem ::= SEQUENCE {

nr-frequency-band NRFrequencyBand,

supported-SUL-Band-List SupportedSULBandList OPTIONAL,

iE-Extension ProtocolExtensionContainer { {NRFrequencyBandItem-ExtIEs} } OPTIONAL,

...

}

NRFrequencyBandItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NRFrequencyInfo ::= SEQUENCE {

nrARFCN NRARFCN,

sul-information SUL-Information OPTIONAL,

frequencyBand-List NRFrequencyBand-List,

iE-Extension ProtocolExtensionContainer { {NRFrequencyInfo-ExtIEs} } OPTIONAL,

...

}

NRFrequencyInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-FrequencyShift7p5khz CRITICALITY ignore EXTENSION FrequencyShift7p5khz PRESENCE optional },...

}

NRMobilityHistoryReport ::= OCTET STRING

NRModeInfo ::= CHOICE {

fdd NRModeInfoFDD,

tdd NRModeInfoTDD,

choice-extension ProtocolIE-Single-Container { {NRModeInfo-ExtIEs} }

}

NRModeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

NRModeInfoFDD ::= SEQUENCE {

ulNRFrequencyInfo NRFrequencyInfo,

dlNRFrequencyInfo NRFrequencyInfo,

ulNRTransmissonBandwidth NRTransmissionBandwidth,

dlNRTransmissonBandwidth NRTransmissionBandwidth,

iE-Extension ProtocolExtensionContainer { {NRModeInfoFDD-ExtIEs} } OPTIONAL,

...

}

NRModeInfoFDD-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-ULCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

{ ID id-DLCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

...

}

NRModeInfoTDD ::= SEQUENCE {

nrFrequencyInfo NRFrequencyInfo,

nrTransmissonBandwidth NRTransmissionBandwidth,

iE-Extension ProtocolExtensionContainer { {NRModeInfoTDD-ExtIEs} } OPTIONAL,

...

}

NRModeInfoTDD-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-IntendedTDD-DL-ULConfiguration-NR CRITICALITY ignore EXTENSION IntendedTDD-DL-ULConfiguration-NR PRESENCE optional }|

{ID id-TDDULDLConfigurationCommonNR CRITICALITY ignore EXTENSION TDDULDLConfigurationCommonNR PRESENCE optional }|

{ ID id-CarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

...

}

NRNRB ::= ENUMERATED { nrb11, nrb18, nrb24, nrb25, nrb31, nrb32, nrb38, nrb51, nrb52, nrb65, nrb66, nrb78, nrb79, nrb93, nrb106, nrb107, nrb121, nrb132, nrb133, nrb135, nrb160, nrb162, nrb189, nrb216, nrb217, nrb245, nrb264, nrb270, nrb273, ...}

NRPCI ::= INTEGER (0..1007, ...)

NRSCS ::= ENUMERATED { scs15, scs30, scs60, scs120, ...}

NRTransmissionBandwidth ::= SEQUENCE {

nRSCS NRSCS,

nRNRB NRNRB,

iE-Extensions ProtocolExtensionContainer { {NRTransmissionBandwidth-ExtIEs} } OPTIONAL,

...

}

NRTransmissionBandwidth-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NumberOfAntennaPorts-E-UTRA ::= ENUMERATED {an1, an2, an4, ...}

NG-RANTraceID ::=OCTET STRING (SIZE (8))

NonGBRResources-Offered ::= ENUMERATED {true, ...}

NRV2XServicesAuthorized ::= SEQUENCE {

vehicleUE VehicleUE OPTIONAL,

pedestrianUE PedestrianUE OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {NRV2XServicesAuthorized-ExtIEs} } OPTIONAL,

...

}

NRV2XServicesAuthorized-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

NRUESidelinkAggregateMaximumBitRate ::= SEQUENCE {

uESidelinkAggregateMaximumBitRate BitRate,

iE-Extensions ProtocolExtensionContainer { {NRUESidelinkAggregateMaximumBitRate-ExtIEs} } OPTIONAL,

...

}

NRUESidelinkAggregateMaximumBitRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- O

OfferedCapacity ::= INTEGER (1.. 16777216,...)

OffsetOfNbiotChannelNumberToEARFCN ::= ENUMERATED {

minusTen,

minusNine,

minusEightDotFive,

minusEight,

minusSeven,

minusSix,

minusFive,

minusFourDotFive,

minusFour,

minusThree,

minusTwo,

minusOne,

minusZeroDotFive,

zero,

one,

two,

three,

threeDotFive,

four,

five,

six,

seven,

sevenDotFive,

eight,

nine,

...

}

-- P

PacketDelayBudget ::= INTEGER (0..1023, ...)

PacketErrorRate ::= SEQUENCE {

pER-Scalar PER-Scalar,

pER-Exponent PER-Exponent,

iE-Extensions ProtocolExtensionContainer { {PacketErrorRate-ExtIEs} } OPTIONAL,

...

}

PacketErrorRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PedestrianUE ::= ENUMERATED {

authorized,

not-authorized,

...

}

PER-Scalar ::= INTEGER (0..9, ...)

PER-Exponent ::= INTEGER (0..9, ...)

PacketLossRate ::= INTEGER (0..1000, ...)

PagingDRX ::= ENUMERATED {

v32,

v64,

v128,

v256,

... ,

v512,

v1024

}

PagingeDRXInformation ::= SEQUENCE {

paging-eDRX-Cycle Paging-eDRX-Cycle,

paging-Time-Window Paging-Time-Window OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PagingeDRXInformation-ExtIEs} } OPTIONAL,

...

}

PagingeDRXInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Paging-eDRX-Cycle ::= ENUMERATED {

hfhalf, hf1, hf2, hf4, hf6,

hf8, hf10, hf12, hf14, hf16,

hf32, hf64, hf128, hf256,

...

}

Paging-Time-Window ::= ENUMERATED {

s1, s2, s3, s4, s5,

s6, s7, s8, s9, s10,

s11, s12, s13, s14, s15, s16,

...

}

PagingPriority ::= ENUMERATED {

priolevel1,

priolevel2,

priolevel3,

priolevel4,

priolevel5,

priolevel6,

priolevel7,

priolevel8,

...

}

PartialListIndicator ::= ENUMERATED {partial, ...}

PC5QoSParameters ::= SEQUENCE {

pc5QoSFlowList PC5QoSFlowList,

pc5LinkAggregateBitRates BitRate OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5QoSParameters-ExtIEs} } OPTIONAL,

...

}

PC5QoSParameters-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PC5QoSFlowList ::= SEQUENCE (SIZE(1..maxnoofPC5QoSFlows)) OF PC5QoSFlowItem

PC5QoSFlowItem::= SEQUENCE {

pQI FiveQI,

pc5FlowBitRates PC5FlowBitRates OPTIONAL,

range Range OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PC5QoSFlowItem-ExtIEs} } OPTIONAL,

...

}

PC5QoSFlowItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PC5FlowBitRates ::= SEQUENCE {

guaranteedFlowBitRate BitRate,

maximumFlowBitRate BitRate,

iE-Extensions ProtocolExtensionContainer { { PC5FlowBitRates-ExtIEs} } OPTIONAL,

...

}

PC5FlowBitRates-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDCPChangeIndication ::= CHOICE {

from-S-NG-RAN-node ENUMERATED {s-ng-ran-node-key-update-required, pdcp-data-recovery-required, ...},

from-M-NG-RAN-node ENUMERATED {pdcp-data-recovery-required, ...},

choice-extension ProtocolIE-Single-Container { {PDCPChangeIndication-ExtIEs} }

}

PDCPChangeIndication-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

PDCPDuplicationConfiguration ::= ENUMERATED {

configured,

de-configured,

...

}

PDCPSNLength ::= SEQUENCE {

ulPDCPSNLength ENUMERATED {v12bits, v18bits, ...},

dlPDCPSNLength ENUMERATED {v12bits, v18bits, ...},

iE-Extension ProtocolExtensionContainer { {PDCPSNLength-ExtIEs} } OPTIONAL,

...

}

PDCPSNLength-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionAggregateMaximumBitRate ::= SEQUENCE {

downlink-session-AMBR BitRate,

uplink-session-AMBR BitRate,

iE-Extensions ProtocolExtensionContainer { {PDUSessionAggregateMaximumBitRate-ExtIEs} } OPTIONAL,

...

}

PDUSessionAggregateMaximumBitRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSession-List ::= SEQUENCE (SIZE (1.. maxnoofPDUSessions)) OF PDUSession-ID

PDUSession-List-withCause ::= SEQUENCE (SIZE (1.. maxnoofPDUSessions)) OF PDUSession-List-withCause-Item

PDUSession-List-withCause-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

cause Cause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSession-List-withCause-Item-ExtIEs} } OPTIONAL,

...

}

PDUSession-List-withCause-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSession-List-withDataForwardingFromTarget ::= SEQUENCE (SIZE (1.. maxnoofPDUSessions)) OF

PDUSession-List-withDataForwardingFromTarget-Item

PDUSession-List-withDataForwardingFromTarget-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

dataforwardinginfoTarget DataForwardingInfoFromTargetNGRANnode,

iE-Extension ProtocolExtensionContainer { {PDUSession-List-withDataForwardingFromTarget-Item-ExtIEs} } OPTIONAL,

...

}

PDUSession-List-withDataForwardingFromTarget-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional},

...

}

PDUSession-List-withDataForwardingRequest ::= SEQUENCE (SIZE (1.. maxnoofPDUSessions)) OF

PDUSession-List-withDataForwardingRequest-Item

PDUSession-List-withDataForwardingRequest-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

dataforwardingInfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

dRBtoBeReleasedList DRBToQoSFlowMapping-List OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSession-List-withDataForwardingRequest-Item-ExtIEs} } OPTIONAL,

...

}

PDUSession-List-withDataForwardingRequest-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-Cause CRITICALITY ignore EXTENSION Cause PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session related message level IEs BEGIN

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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--

-- PDU Session Resources Admitted List

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourcesAdmitted-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourcesAdmitted-Item

PDUSessionResourcesAdmitted-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

pduSessionResourceAdmittedInfo PDUSessionResourceAdmittedInfo,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourcesAdmitted-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesAdmitted-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionResourceAdmittedInfo ::= SEQUENCE {

dL-NG-U-TNL-Information-Unchanged ENUMERATED {true, ...} OPTIONAL,

qosFlowsAdmitted-List QoSFlowsAdmitted-List,

qosFlowsNotAdmitted-List QoSFlows-List-withCause OPTIONAL,

dataForwardingInfoFromTarget DataForwardingInfoFromTargetNGRANnode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceAdmittedInfo-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceAdmittedInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-SecondarydataForwardingInfoFromTarget-List CRITICALITY ignore EXTENSION SecondarydataForwardingInfoFromTarget-List PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resources Not Admitted List

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourcesNotAdmitted-List ::= SEQUENCE (SIZE (1..maxnoofPDUSessions)) OF PDUSessionResourcesNotAdmitted-Item

PDUSessionResourcesNotAdmitted-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

cause Cause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {PDUSessionResourcesNotAdmitted-Item-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesNotAdmitted-Item-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resources To Be Setup List

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourcesToBeSetup-List ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourcesToBeSetup-Item

PDUSessionResourcesToBeSetup-Item ::= SEQUENCE {

pduSessionId PDUSession-ID,

s-NSSAI S-NSSAI,

pduSessionAMBR PDUSessionAggregateMaximumBitRate OPTIONAL,

uL-NG-U-TNLatUPF UPTransportLayerInformation,

source-DL-NG-U-TNL-Information UPTransportLayerInformation OPTIONAL,

securityIndication SecurityIndication OPTIONAL,

pduSessionType PDUSessionType,

pduSessionNetworkInstance PDUSessionNetworkInstance OPTIONAL,

qosFlowsToBeSetup-List QoSFlowsToBeSetup-List,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourcesToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourcesToBeSetup-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-UL-NG-U-TNLatUPF-List CRITICALITY ignore EXTENSION Additional-UL-NG-U-TNLatUPF-List PRESENCE optional}|

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ ID id-Redundant-UL-NG-U-TNLatUPF CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional}|

{ ID id-Additional-Redundant-UL-NG-U-TNLatUPF-List CRITICALITY ignore EXTENSION Additional-UL-NG-U-TNLatUPF-List PRESENCE optional}|

{ ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ ID id-RedundantPDUSessionInformation CRITICALITY ignore EXTENSION RedundantPDUSessionInformation PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Setup Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceSetupInfo-SNterminated ::= SEQUENCE {

uL-NG-U-TNLatUPF UPTransportLayerInformation,

pduSessionType PDUSessionType,

pduSessionNetworkInstance PDUSessionNetworkInstance OPTIONAL,

qosFlowsToBeSetup-List QoSFlowsToBeSetup-List-Setup-SNterminated,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

securityIndication SecurityIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceSetupInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceSetupInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-SecurityResult CRITICALITY reject EXTENSION SecurityResult PRESENCE optional}|

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ID id-DefaultDRB-Allowed CRITICALITY ignore EXTENSION DefaultDRB-Allowed PRESENCE optional}|

{ ID id-SplitSessionIndicator CRITICALITY reject EXTENSION SplitSessionIndicator PRESENCE optional}|

{ID id-NonGBRResources-Offered CRITICALITY ignore EXTENSION NonGBRResources-Offered PRESENCE optional}|

{ ID id-Redundant-UL-NG-U-TNLatUPF CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional}|

{ ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ ID id-RedundantPDUSessionInformation CRITICALITY ignore EXTENSION RedundantPDUSessionInformation PRESENCE optional},

...

}

QoSFlowsToBeSetup-List-Setup-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsToBeSetup-List-Setup-SNterminated-Item

QoSFlowsToBeSetup-List-Setup-SNterminated-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

qosFlowLevelQoSParameters QoSFlowLevelQoSParameters,

offeredGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsToBeSetup-List-Setup-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsToBeSetup-List-Setup-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-TSCTrafficCharacteristics CRITICALITY ignore EXTENSION TSCTrafficCharacteristics PRESENCE optional}|

{ ID id-RedundantQoSFlowIndicator CRITICALITY ignore EXTENSION RedundantQoSFlowIndicator PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Setup Response Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceSetupResponseInfo-SNterminated ::= SEQUENCE {

dL-NG-U-TNLatNG-RAN UPTransportLayerInformation,

dRBsToBeSetup DRBsToBeSetupList-SetupResponse-SNterminated OPTIONAL,

dataforwardinginfoTarget DataForwardingInfoFromTargetNGRANnode OPTIONAL,

qosFlowsNotAdmittedList QoSFlows-List-withCause OPTIONAL,

securityResult SecurityResult OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceSetupResponseInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceSetupResponseInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional}|

{ ID id-Redundant-DL-NG-U-TNLatNG-RAN CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional}|

{ ID id-UsedRSNInformation CRITICALITY ignore EXTENSION RedundantPDUSessionInformation PRESENCE optional},

...

}

DRBsToBeSetupList-SetupResponse-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeSetupList-SetupResponse-SNterminated-Item

DRBsToBeSetupList-SetupResponse-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-UL-PDCP-UP-TNLInfo UPTransportParameters,

dRB-QoS QoSFlowLevelQoSParameters,

pDCP-SNLength PDCPSNLength OPTIONAL,

rLC-Mode RLCMode,

uL-Configuration ULConfiguration OPTIONAL,

secondary-SN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

qoSFlowsMappedtoDRB-SetupResponse-SNterminated QoSFlowsMappedtoDRB-SetupResponse-SNterminated,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeSetupList-SetupResponse-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeSetupList-SetupResponse-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional},

...

}

QoSFlowsMappedtoDRB-SetupResponse-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF

QoSFlowsMappedtoDRB-SetupResponse-SNterminated-Item

QoSFlowsMappedtoDRB-SetupResponse-SNterminated-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

mCGRequestedGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

qosFlowMappingIndication QoSFlowMappingIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsMappedtoDRB-SetupResponse-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsMappedtoDRB-SetupResponse-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetIndex PRESENCE optional },

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Setup Info - MN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceSetupInfo-MNterminated ::= SEQUENCE {

pduSessionType PDUSessionType,

dRBsToBeSetup DRBsToBeSetupList-Setup-MNterminated,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceSetupInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceSetupInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeSetupList-Setup-MNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeSetupList-Setup-MNterminated-Item

DRBsToBeSetupList-Setup-MNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

mN-UL-PDCP-UP-TNLInfo UPTransportParameters,

rLC-Mode RLCMode,

uL-Configuration ULConfiguration OPTIONAL,

dRB-QoS QoSFlowLevelQoSParameters,

pDCP-SNLength PDCPSNLength OPTIONAL,

secondary-MN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

qoSFlowsMappedtoDRB-Setup-MNterminated QoSFlowsMappedtoDRB-Setup-MNterminated,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeSetupList-Setup-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeSetupList-Setup-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional},

...

}

QoSFlowsMappedtoDRB-Setup-MNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsMappedtoDRB-Setup-MNterminated-Item

QoSFlowsMappedtoDRB-Setup-MNterminated-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

qoSFlowLevelQoSParameters QoSFlowLevelQoSParameters,

qosFlowMappingIndication QoSFlowMappingIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsMappedtoDRB-Setup-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsMappedtoDRB-Setup-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-TSCTrafficCharacteristics CRITICALITY ignore EXTENSION TSCTrafficCharacteristics PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Setup Response Info - MN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceSetupResponseInfo-MNterminated ::= SEQUENCE {

dRBsAdmittedList DRBsAdmittedList-SetupResponse-MNterminated,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceSetupResponseInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceSetupResponseInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-DRBsNotAdmittedSetupModifyList CRITICALITY ignore EXTENSION DRB-List-withCause PRESENCE optional},

...

}

DRBsAdmittedList-SetupResponse-MNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsAdmittedList-SetupResponse-MNterminated-Item

DRBsAdmittedList-SetupResponse-MNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-DL-SCG-UP-TNLInfo UPTransportParameters,

secondary-SN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

lCID LCID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsAdmittedList-SetupResponse-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsAdmittedList-SetupResponse-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-QoSFlowsMappedtoDRB-SetupResponse-MNterminated CRITICALITY ignore EXTENSION QoSFlowsMappedtoDRB-SetupResponse-MNterminated PRESENCE optional},

...

}

QoSFlowsMappedtoDRB-SetupResponse-MNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsMappedtoDRB-SetupResponse-MNterminated-Item

QoSFlowsMappedtoDRB-SetupResponse-MNterminated-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

currentQoSParaSetIndex QoSParaSetIndex,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsMappedtoDRB-SetupResponse-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsMappedtoDRB-SetupResponse-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

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--

-- PDU Session Resource Modification Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModificationInfo-SNterminated ::= SEQUENCE {

uL-NG-U-TNLatUPF UPTransportLayerInformation OPTIONAL,

pduSessionNetworkInstance PDUSessionNetworkInstance OPTIONAL,

qosFlowsToBeSetup-List QoSFlowsToBeSetup-List-Setup-SNterminated OPTIONAL,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

qosFlowsToBeModified-List QoSFlowsToBeSetup-List-Modified-SNterminated OPTIONAL,

qoSFlowsToBeReleased-List QoSFlows-List-withCause OPTIONAL,

drbsToBeModifiedList DRBsToBeModified-List-Modified-SNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModificationInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModificationInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-PDUSessionCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional}|

{ID id-DefaultDRB-Allowed CRITICALITY ignore EXTENSION DefaultDRB-Allowed PRESENCE optional}|

{ID id-NonGBRResources-Offered CRITICALITY ignore EXTENSION NonGBRResources-Offered PRESENCE optional}|

{ID id-Redundant-UL-NG-U-TNLatUPF CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional}|

{ID id-RedundantCommonNetworkInstance CRITICALITY ignore EXTENSION PDUSessionCommonNetworkInstance PRESENCE optional},

...

}

QoSFlowsToBeSetup-List-Modified-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsToBeSetup-List-Modified-SNterminated-Item

QoSFlowsToBeSetup-List-Modified-SNterminated-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

qosFlowLevelQoSParameters QoSFlowLevelQoSParameters OPTIONAL,

offeredGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

qosFlowMappingIndication QoSFlowMappingIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsToBeSetup-List-Modified-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsToBeSetup-List-Modified-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-TSCTrafficCharacteristics CRITICALITY ignore EXTENSION TSCTrafficCharacteristics PRESENCE optional}|

{ ID id-RedundantQoSFlowIndicator CRITICALITY ignore EXTENSION RedundantQoSFlowIndicator PRESENCE optional},

...

}

DRBsToBeModified-List-Modified-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeModified-List-Modified-SNterminated-Item

DRBsToBeModified-List-Modified-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

mN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

secondary-MN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

lCID LCID OPTIONAL,

rlc-status RLC-Status OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModified-List-Modified-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModified-List-Modified-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Response Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModificationResponseInfo-SNterminated ::= SEQUENCE {

dL-NG-U-TNLatNG-RAN UPTransportLayerInformation OPTIONAL,

dRBsToBeSetup DRBsToBeSetupList-SetupResponse-SNterminated OPTIONAL,

dataforwardinginfoTarget DataForwardingInfoFromTargetNGRANnode OPTIONAL,

dRBsToBeModified DRBsToBeModifiedList-ModificationResponse-SNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

qosFlowsNotAdmittedTBAdded QoSFlows-List-withCause OPTIONAL,

qosFlowsReleased QoSFlows-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModificationResponseInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModificationResponseInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional}|

{ ID id-Redundant-DL-NG-U-TNLatNG-RAN CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional},

...

}

DRBsToBeModifiedList-ModificationResponse-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF

DRBsToBeModifiedList-ModificationResponse-SNterminated-Item

DRBsToBeModifiedList-ModificationResponse-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

dRB-QoS QoSFlowLevelQoSParameters OPTIONAL,

qoSFlowsMappedtoDRB-SetupResponse-SNterminated QoSFlowsMappedtoDRB-SetupResponse-SNterminated OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModifiedList-ModificationResponse-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModifiedList-ModificationResponse-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional}|

{ ID id-secondary-SN-UL-PDCP-UP-TNLInfo CRITICALITY ignore EXTENSION UPTransportParameters PRESENCE optional}|

{ ID id-pdcpDuplicationConfiguration CRITICALITY ignore EXTENSION PDCPDuplicationConfiguration PRESENCE optional}|

{ ID id-duplicationActivation CRITICALITY ignore EXTENSION DuplicationActivation PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Info - MN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModificationInfo-MNterminated ::= SEQUENCE {

pduSessionType PDUSessionType,

dRBsToBeSetup DRBsToBeSetupList-Setup-MNterminated OPTIONAL,

dRBsToBeModified DRBsToBeModifiedList-Modification-MNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModificationInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModificationInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeModifiedList-Modification-MNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF

DRBsToBeModifiedList-Modification-MNterminated-Item

DRBsToBeModifiedList-Modification-MNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

mN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

dRB-QoS QoSFlowLevelQoSParameters OPTIONAL,

secondary-MN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

uL-Configuration ULConfiguration OPTIONAL,

pdcpDuplicationConfiguration PDCPDuplicationConfiguration OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

qoSFlowsMappedtoDRB-Setup-MNterminated QoSFlowsMappedtoDRB-Setup-MNterminated OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModifiedList-Modification-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModifiedList-Modification-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Response Info - MN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModificationResponseInfo-MNterminated ::= SEQUENCE {

dRBsAdmittedList DRBsAdmittedList-ModificationResponse-MNterminated,

dRBsReleasedList DRB-List OPTIONAL,

dRBsNotAdmittedSetupModifyList DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModificationResponseInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModificationResponseInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsAdmittedList-ModificationResponse-MNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsAdmittedList-ModificationResponse-MNterminated-Item

DRBsAdmittedList-ModificationResponse-MNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

secondary-SN-DL-SCG-UP-TNLInfo UPTransportParameters OPTIONAL,

lCID LCID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsAdmittedList-ModificationResponse-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsAdmittedList-ModificationResponse-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-QoSFlowsMappedtoDRB-SetupResponse-MNterminated CRITICALITY ignore EXTENSION QoSFlowsMappedtoDRB-SetupResponse-MNterminated PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Change Required Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceChangeRequiredInfo-SNterminated ::= SEQUENCE {

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceChangeRequiredInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceChangeRequiredInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Change Confirm Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceChangeConfirmInfo-SNterminated ::= SEQUENCE {

dataforwardinginfoTarget DataForwardingInfoFromTargetNGRANnode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceChangeConfirmInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceChangeConfirmInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Change Required Info - MN terminated

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceChangeRequiredInfo-MNterminated ::= SEQUENCE {

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceChangeRequiredInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceChangeRequiredInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Change Confirm Info - MN terminated

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceChangeConfirmInfo-MNterminated ::= SEQUENCE {

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceChangeConfirmInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceChangeConfirmInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Required Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModRqdInfo-SNterminated ::= SEQUENCE {

dL-NG-U-TNLatNG-RAN UPTransportLayerInformation OPTIONAL,

qoSFlowsToBeReleased-List QoSFlows-List-withCause OPTIONAL,

dataforwardinginfofromSource DataforwardingandOffloadingInfofromSource OPTIONAL,

drbsToBeSetupList DRBsToBeSetup-List-ModRqd-SNterminated OPTIONAL,

drbsToBeModifiedList DRBsToBeModified-List-ModRqd-SNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModRqdInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModRqdInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeSetup-List-ModRqd-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeSetup-List-ModRqd-SNterminated-Item

DRBsToBeSetup-List-ModRqd-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

pDCP-SNLength PDCPSNLength OPTIONAL,

sn-UL-PDCP-UPTNLinfo UPTransportParameters,

dRB-QoS QoSFlowLevelQoSParameters,

secondary-SN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

uL-Configuration ULConfiguration OPTIONAL,

qoSFlowsMappedtoDRB-ModRqd-SNterminated QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated,

rLC-Mode RLCMode,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeSetup-List-ModRqd-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeSetup-List-ModRqd-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional},

...

}

QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF

QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated-Item

QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

mCGRequestedGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsSetupMappedtoDRB-ModRqd-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeModified-List-ModRqd-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeModified-List-ModRqd-SNterminated-Item

DRBsToBeModified-List-ModRqd-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

dRB-QoS QoSFlowLevelQoSParameters OPTIONAL,

secondary-SN-UL-PDCP-UP-TNLInfo UPTransportParameters OPTIONAL,

uL-Configuration ULConfiguration OPTIONAL,

pdcpDuplicationConfiguration PDCPDuplicationConfiguration OPTIONAL,

duplicationActivation DuplicationActivation OPTIONAL,

qoSFlowsMappedtoDRB-ModRqd-SNterminated QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModified-List-ModRqd-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModified-List-ModRqd-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional}|

{ ID id-RLCDuplicationInformation CRITICALITY ignore EXTENSION RLCDuplicationInformation PRESENCE optional},

...

}

QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF

QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated-Item

QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated-Item ::= SEQUENCE {

qoSFlowIdentifier QoSFlowIdentifier,

mCGRequestedGBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsModifiedMappedtoDRB-ModRqd-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Confirm Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModConfirmInfo-SNterminated ::= SEQUENCE {

uL-NG-U-TNLatUPF UPTransportLayerInformation OPTIONAL,

dRBsAdmittedList DRBsAdmittedList-ModConfirm-SNterminated,

dRBsNotAdmittedSetupModifyList DRB-List-withCause OPTIONAL,

dataforwardinginfoTarget DataForwardingInfoFromTargetNGRANnode OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModConfirmInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModConfirmInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DRB-IDs-takenintouse CRITICALITY reject EXTENSION DRB-List PRESENCE optional},

...

}

DRBsAdmittedList-ModConfirm-SNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF

DRBsAdmittedList-ModConfirm-SNterminated-Item

DRBsAdmittedList-ModConfirm-SNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

mN-DL-CG-UP-TNLInfo UPTransportParameters OPTIONAL,

secondary-MN-DL-CG-UP-TNLInfo UPTransportParameters OPTIONAL,

lCID LCID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsAdmittedList-ModConfirm-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsAdmittedList-ModConfirm-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Required Info - MN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModRqdInfo-MNterminated ::= SEQUENCE {

dRBsToBeModified DRBsToBeModified-List-ModRqd-MNterminated OPTIONAL,

dRBsToBeReleased DRB-List-withCause OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModRqdInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModRqdInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeModified-List-ModRqd-MNterminated ::= SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeModified-List-ModRqd-MNterminated-Item

DRBsToBeModified-List-ModRqd-MNterminated-Item ::= SEQUENCE {

drb-ID DRB-ID,

sN-DL-SCG-UP-TNLInfo UPTransportLayerInformation,

secondary-SN-DL-SCG-UP-TNLInfo UPTransportLayerInformation OPTIONAL,

lCID LCID OPTIONAL,

rlc-status RLC-Status OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeModified-List-ModRqd-MNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeModified-List-ModRqd-MNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-Additional-PDCP-Duplication-TNL-List CRITICALITY ignore EXTENSION Additional-PDCP-Duplication-TNL-List PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Modification Confirm Info - MN terminated

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceModConfirmInfo-MNterminated ::= SEQUENCE {

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceModConfirmInfo-MNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceModConfirmInfo-MNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session Resource Setup Complete Info - SN terminated

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceBearerSetupCompleteInfo-SNterminated ::= SEQUENCE {

dRBsToBeSetupList SEQUENCE (SIZE(1..maxnoofDRBs)) OF DRBsToBeSetupList-BearerSetupComplete-SNterminated-Item,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceBearerSetupCompleteInfo-SNterminated-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceBearerSetupCompleteInfo-SNterminated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

DRBsToBeSetupList-BearerSetupComplete-SNterminated-Item ::= SEQUENCE {

dRB-ID DRB-ID,

mN-Xn-U-TNLInfoatM UPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { {DRBsToBeSetupList-BearerSetupComplete-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

DRBsToBeSetupList-BearerSetupComplete-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-Secondary-MN-Xn-U-TNLInfoatM CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional},

...

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU Session related message level IEs END

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PDUSessionResourceSecondaryRATUsageList ::= SEQUENCE (SIZE(1..maxnoofPDUSessions)) OF PDUSessionResourceSecondaryRATUsageItem

PDUSessionResourceSecondaryRATUsageItem ::= SEQUENCE {

pDUSessionID PDUSession-ID,

secondaryRATUsageInformation SecondaryRATUsageInformation,

iE-Extensions ProtocolExtensionContainer { {PDUSessionResourceSecondaryRATUsageItem-ExtIEs} } OPTIONAL,

...

}

PDUSessionResourceSecondaryRATUsageItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionUsageReport ::= SEQUENCE {

rATType ENUMERATED {nr, eutra, ..., nr-unlicensed, e-utra-unlicensed},

pDUSessionTimedReportList VolumeTimedReportList,

iE-Extensions ProtocolExtensionContainer { {PDUSessionUsageReport-ExtIEs} } OPTIONAL,

...

}

PDUSessionUsageReport-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PDUSessionType ::= ENUMERATED {ipv4, ipv6, ipv4v6, ethernet, unstructured, ...}

PDUSession-ID ::= INTEGER (0..255)

PDUSessionNetworkInstance ::= INTEGER (1..256, ...)

PDUSessionCommonNetworkInstance ::= OCTET STRING

Periodical ::= SEQUENCE {

iE-Extensions ProtocolExtensionContainer { { Periodical-ExtIEs} } OPTIONAL,

...

}

Periodical-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

PLMN-Identity ::= OCTET STRING (SIZE(3))

PCIListForMDT ::= SEQUENCE (SIZE(1.. maxnoofNeighPCIforMDT)) OF NRPCI

PNI-NPN-Restricted-Information ::= ENUMERATED { restriced, not-restricted, ...}

PortNumber ::= BIT STRING (SIZE (16))

PriorityLevelQoS ::= INTEGER (1..127, ...)

ProtectedE-UTRAResourceIndication ::= SEQUENCE {

activationSFN ActivationSFN,

protectedResourceList ProtectedE-UTRAResourceList,

mbsfnControlRegionLength MBSFNControlRegionLength OPTIONAL,

pDCCHRegionLength INTEGER (1..3),

iE-Extensions ProtocolExtensionContainer { {ProtectedE-UTRAResourceIndication-ExtIEs} } OPTIONAL,

...

}

ProtectedE-UTRAResourceIndication-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ProtectedE-UTRAResourceList ::= SEQUENCE (SIZE (1.. maxnoofProtectedResourcePatterns)) OF ProtectedE-UTRAResource-Item

ProtectedE-UTRAResource-Item ::= SEQUENCE {

resourceType ENUMERATED {downlinknonCRS, cRS, uplink, ...},

intra-PRBProtectedResourceFootprint BIT STRING (SIZE(84, ...)),

protectedFootprintFrequencyPattern BIT STRING (SIZE(6..110, ...)),

protectedFootprintTimePattern ProtectedE-UTRAFootprintTimePattern,

iE-Extensions ProtocolExtensionContainer { {ProtectedE-UTRAResource-Item-ExtIEs} } OPTIONAL,

...

}

ProtectedE-UTRAResource-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ProtectedE-UTRAFootprintTimePattern ::= SEQUENCE {

protectedFootprintTimeperiodicity INTEGER (1..320, ...),

protectedFootrpintStartTime INTEGER (1..20, ...),

iE-Extensions ProtocolExtensionContainer { {ProtectedE-UTRAFootprintTimePattern-ExtIEs} } OPTIONAL,

...

}

ProtectedE-UTRAFootprintTimePattern-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- Q

QoSCharacteristics ::= CHOICE {

non-dynamic NonDynamic5QIDescriptor,

dynamic Dynamic5QIDescriptor,

choice-extension ProtocolIE-Single-Container { {QoSCharacteristics-ExtIEs} }

}

QoSCharacteristics-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

QoSFlowIdentifier ::= INTEGER (0..63, ...)

QoSFlowLevelQoSParameters ::= SEQUENCE {

qos-characteristics QoSCharacteristics,

allocationAndRetentionPrio AllocationandRetentionPriority,

gBRQoSFlowInfo GBRQoSFlowInfo OPTIONAL,

relectiveQoS ReflectiveQoSAttribute OPTIONAL,

additionalQoSflowInfo ENUMERATED {more-likely, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoSFlowLevelQoSParameters-ExtIEs} } OPTIONAL,

...

}

QoSFlowLevelQoSParameters-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-QoSMonitoringRequest CRITICALITY ignore EXTENSION QosMonitoringRequest PRESENCE optional}|

{ID id-QosMonitoringReportingFrequency CRITICALITY ignore EXTENSION QosMonitoringReportingFrequency PRESENCE optional}|

{ID id-QoSMonitoringDisabled CRITICALITY ignore EXTENSION QoSMonitoringDisabled PRESENCE optional},

...

}

QoSFlowMappingIndication ::= ENUMERATED {

ul,

dl,

...

}

QoSFlowNotificationControlIndicationInfo ::= SEQUENCE (SIZE (1..maxnoofQoSFlows)) OF QoSFlowNotify-Item

QoSFlowNotify-Item ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

notificationInformation ENUMERATED {fulfilled, not-fulfilled, ...},

iE-Extensions ProtocolExtensionContainer { {QoSFlowNotificationControlIndicationInfo-ExtIEs} } OPTIONAL,

...

}

QoSFlowNotificationControlIndicationInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetNotifyIndex PRESENCE optional },

...

}

QoSFlows-List ::= SEQUENCE (SIZE (1..maxnoofQoSFlows)) OF QoSFlow-Item

QoSFlow-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

qosFlowMappingIndication QoSFlowMappingIndication OPTIONAL,

iE-Extension ProtocolExtensionContainer { {QoSFlow-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlow-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSFlows-List-withCause ::= SEQUENCE (SIZE (1..maxnoofQoSFlows)) OF QoSFlowwithCause-Item

QoSFlowwithCause-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

cause Cause OPTIONAL,

iE-Extension ProtocolExtensionContainer { {QoSFlowwithCause-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowwithCause-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoS-Mapping-Information ::= SEQUENCE {

dscp BIT STRING (SIZE(6)) OPTIONAL,

flow-label BIT STRING (SIZE(20)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoS-Mapping-Information-ExtIEs} } OPTIONAL,

...

}

QoS-Mapping-Information-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QoSParaSetIndex ::= INTEGER (1..8,...)

QoSParaSetNotifyIndex ::= INTEGER (0..8,...)

QoSFlowsAdmitted-List ::= SEQUENCE (SIZE (1..maxnoofQoSFlows)) OF QoSFlowsAdmitted-Item

QoSFlowsAdmitted-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

iE-Extension ProtocolExtensionContainer { {QoSFlowsAdmitted-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsAdmitted-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CurrentQoSParaSetIndex CRITICALITY ignore EXTENSION QoSParaSetIndex PRESENCE optional },

...

}

QoSFlowsToBeSetup-List ::= SEQUENCE (SIZE (1..maxnoofQoSFlows)) OF QoSFlowsToBeSetup-Item

QoSFlowsToBeSetup-Item ::= SEQUENCE {

qfi QoSFlowIdentifier,

qosFlowLevelQoSParameters QoSFlowLevelQoSParameters,

e-RAB-ID E-RAB-ID OPTIONAL,

iE-Extension ProtocolExtensionContainer { {QoSFlowsToBeSetup-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsToBeSetup-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-TSCTrafficCharacteristics CRITICALITY ignore EXTENSION TSCTrafficCharacteristics PRESENCE optional}|

{ ID id-RedundantQoSFlowIndicator CRITICALITY ignore EXTENSION RedundantQoSFlowIndicator PRESENCE optional},

...

}

QoSFlowsUsageReportList ::= SEQUENCE (SIZE(1..maxnoofQoSFlows)) OF QoSFlowsUsageReport-Item

QoSFlowsUsageReport-Item ::= SEQUENCE {

qosFlowIdentifier QoSFlowIdentifier,

rATType ENUMERATED {nr, eutra, ..., nr-unlicensed, e-utra-unlicensed},

qoSFlowsTimedReportList VolumeTimedReportList,

iE-Extensions ProtocolExtensionContainer { {QoSFlowsUsageReport-Item-ExtIEs} } OPTIONAL,

...

}

QoSFlowsUsageReport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

QosMonitoringRequest ::= ENUMERATED {ul, dl, both}

QoSMonitoringDisabled ::= ENUMERATED {true, ...}

QosMonitoringReportingFrequency ::= INTEGER (1..1800, ...)

-- R

RACHReportInformation ::= SEQUENCE (SIZE(1.. maxnoofRACHReports)) OF RACHReportList-Item

RACHReportList-Item ::= SEQUENCE {

rACHReport RACHReportContainer,

iE-Extensions ProtocolExtensionContainer { { RACHReportList-Item-ExtIEs} } OPTIONAL,

...

}

RACHReportList-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RACHReportContainer ::= OCTET STRING

RadioResourceStatus ::= CHOICE {

ng-eNB-RadioResourceStatus NG-eNB-RadioResourceStatus,

gNB-RadioResourceStatus GNB-RadioResourceStatus,

choice-extension ProtocolIE-Single-Container { { RadioResourceStatus-ExtIEs} }

}

RadioResourceStatus-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

RANAC ::= INTEGER (0..255)

RANAreaID ::= SEQUENCE {

tAC TAC,

rANAC RANAC OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {RANAreaID-ExtIEs} } OPTIONAL,

...

}

RANAreaID-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RANAreaID-List ::= SEQUENCE (SIZE(1..maxnoofRANAreasinRNA)) OF RANAreaID

Range ::= ENUMERATED {m50, m80, m180, m200, m350, m400, m500, m700, m1000, ...}

RANPagingArea ::= SEQUENCE {

pLMN-Identity PLMN-Identity,

rANPagingAreaChoice RANPagingAreaChoice,

iE-Extensions ProtocolExtensionContainer { {RANPagingArea-ExtIEs} } OPTIONAL,

...

}

RANPagingArea-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RANPagingAreaChoice ::= CHOICE {

cell-List NG-RAN-Cell-Identity-ListinRANPagingArea,

rANAreaID-List RANAreaID-List,

choice-extension ProtocolIE-Single-Container { {RANPagingAreaChoice-ExtIEs} }

}

RANPagingAreaChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

RANPagingAttemptInfo ::= SEQUENCE {

pagingAttemptCount INTEGER (1..16, ...),

intendedNumberOfPagingAttempts INTEGER (1..16, ...),

nextPagingAreaScope ENUMERATED {same, changed, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {RANPagingAttemptInfo-ExtIEs} } OPTIONAL,

...

}

RANPagingAttemptInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RANPagingFailure ::= ENUMERATED {

true,

...

}

RedundantQoSFlowIndicator ::= ENUMERATED {true, false}

RedundantPDUSessionInformation ::= SEQUENCE {

rSN RSN,

iE-Extensions ProtocolExtensionContainer { {RedundantPDUSessionInformation-ExtIEs} } OPTIONAL,

...

}

RedundantPDUSessionInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RSN ::= ENUMERATED {v1, v2, ...}

ReferenceID ::= INTEGER (1..64, ...) -- This IE may need to be refined.

ReflectiveQoSAttribute ::= ENUMERATED {subject-to-reflective-QoS, ...}

ReportAmountMDT ::= ENUMERATED{r1, r2, r4, r8, r16, r32, r64, infinity, ...}

ReportArea ::= ENUMERATED {

cell,

...

}

ReportIntervalMDT ::= ENUMERATED {ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, min1, min6, min12, min30, min60, ...}

ReportType ::= CHOICE {

periodical Periodical,

eventTriggered EventTriggered,

...

}

ReportCharacteristics ::= BIT STRING(SIZE(32))

ReportingPeriodicity ::= ENUMERATED {

half-thousand-ms,

one-thousand-ms,

two-thousand-ms,

five-thousand-ms,

ten-thousand-ms,

...

}

RegistrationRequest ::= ENUMERATED {start, stop, add, ... }

RequestReferenceID ::= INTEGER (1..64, ...)

ReservedSubframePattern ::= SEQUENCE {

subframeType ENUMERATED {mbsfn, non-mbsfn, ...},

reservedSubframePattern BIT STRING (SIZE(10..160)),

mbsfnControlRegionLength MBSFNControlRegionLength OPTIONAL,

iE-Extension ProtocolExtensionContainer { {ReservedSubframePattern-ExtIEs} } OPTIONAL,

...

}

ReservedSubframePattern-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetRequestTypeInfo ::= CHOICE {

fullReset ResetRequestTypeInfo-Full,

partialReset ResetRequestTypeInfo-Partial,

choice-extension ProtocolIE-Single-Container { {ResetRequestTypeInfo-ExtIEs} }

}

ResetRequestTypeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ResetRequestTypeInfo-Full ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {ResetRequestTypeInfo-Full-ExtIEs} } OPTIONAL,

...

}

ResetRequestTypeInfo-Full-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetRequestTypeInfo-Partial ::= SEQUENCE {

ue-contexts-ToBeReleasedList ResetRequestPartialReleaseList,

iE-Extension ProtocolExtensionContainer { {ResetRequestTypeInfo-Partial-ExtIEs} } OPTIONAL,

...

}

ResetRequestTypeInfo-Partial-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetRequestPartialReleaseList ::= SEQUENCE (SIZE(1..maxnoofUEContexts)) OF ResetRequestPartialReleaseItem

ResetRequestPartialReleaseItem ::= SEQUENCE {

ng-ran-node1UEXnAPID NG-RANnodeUEXnAPID OPTIONAL,

ng-ran-node2UEXnAPID NG-RANnodeUEXnAPID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResetRequestPartialReleaseItem-ExtIEs} } OPTIONAL,

...

}

ResetRequestPartialReleaseItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetResponseTypeInfo ::= CHOICE {

fullReset ResetResponseTypeInfo-Full,

partialReset ResetResponseTypeInfo-Partial,

choice-extension ProtocolIE-Single-Container { {ResetResponseTypeInfo-ExtIEs} }

}

ResetResponseTypeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ResetResponseTypeInfo-Full ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {ResetResponseTypeInfo-Full-ExtIEs} } OPTIONAL,

...

}

ResetResponseTypeInfo-Full-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetResponseTypeInfo-Partial ::= SEQUENCE {

ue-contexts-AdmittedToBeReleasedList ResetResponsePartialReleaseList,

iE-Extension ProtocolExtensionContainer { {ResetResponseTypeInfo-Partial-ExtIEs} } OPTIONAL,

...

}

ResetResponseTypeInfo-Partial-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ResetResponsePartialReleaseList ::= SEQUENCE (SIZE(1..maxnoofUEContexts)) OF ResetResponsePartialReleaseItem

ResetResponsePartialReleaseItem ::= SEQUENCE {

ng-ran-node1UEXnAPID NG-RANnodeUEXnAPID OPTIONAL,

ng-ran-node2UEXnAPID NG-RANnodeUEXnAPID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ResetResponsePartialReleaseItem-ExtIEs} } OPTIONAL,

...

}

ResetResponsePartialReleaseItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RLCMode ::= ENUMERATED {

rlc-am,

rlc-um-bidirectional,

rlc-um-unidirectional-ul,

rlc-um-unidirectional-dl,

...

}

RLC-Status ::= SEQUENCE {

reestablishment-Indication Reestablishment-Indication,

iE-Extensions ProtocolExtensionContainer { {RLC-Status-ExtIEs} } OPTIONAL,

...

}

RLC-Status-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RLCDuplicationInformation ::= SEQUENCE {

rLCDuplicationStateList RLCDuplicationStateList,

rLC-PrimaryIndicator ENUMERATED {true, false} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {RLCDuplicationInformation-ItemExtIEs} } OPTIONAL

}

RLCDuplicationInformation-ItemExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RLCDuplicationStateList ::= SEQUENCE (SIZE(1..maxnoofRLCDuplicationstate)) OF RLCDuplicationState-Item

RLCDuplicationState-Item ::= SEQUENCE {

duplicationState ENUMERATED {active,inactive, ...},

iE-Extensions ProtocolExtensionContainer { {RLCDuplicationState-ItemExtIEs } } OPTIONAL,

...

}

RLCDuplicationState-ItemExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Reestablishment-Indication ::= ENUMERATED {

reestablished,

...

}

RFSP-Index ::= INTEGER (1..256)

RRCConfigIndication ::= ENUMERATED {

full-config,

delta-config,

...

}

RRCConnections::= SEQUENCE {

noofRRCConnections NoofRRCConnections,

availableRRCConnectionCapacityValue AvailableRRCConnectionCapacityValue,

iE-Extensions ProtocolExtensionContainer { { RRCConnections-ExtIEs} } OPTIONAL,

...

}

RRCConnections-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCReestab-initiated ::= SEQUENCE {

rRRCReestab-initiated-reporting RRCReestab-Initiated-Reporting,

iE-Extensions ProtocolExtensionContainer { { RRCReestab-initiated-ExtIEs} } OPTIONAL,

...

}

RRCReestab-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCReestab-Initiated-Reporting ::= CHOICE {

rRCReestab-reporting-wo-UERLFReport RRCReestab-Initiated-Reporting-wo-UERLFReport,

rRCReestab-reporting-with-UERLFReport RRCReestab-Initiated-Reporting-with-UERLFReport,

choice-extension ProtocolIE-Single-Container { {RRCReestab-Initiated-Reporting-ExtIEs} }

}

RRCReestab-Initiated-Reporting-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

RRCReestab-Initiated-Reporting-wo-UERLFReport ::= SEQUENCE {

failureCellPCI NG-RAN-CellPCI,

reestabCellCGI GlobalNG-RANCell-ID,

c-RNTI C-RNTI,

shortMAC-I MAC-I,

iE-Extensions ProtocolExtensionContainer { { RRCReestab-Initiated-Reporting-wo-UERLFReport-ExtIEs} } OPTIONAL,

...

}

RRCReestab-Initiated-Reporting-wo-UERLFReport-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCReestab-Initiated-Reporting-with-UERLFReport ::= SEQUENCE {

uERLFReportContainer UERLFReportContainer,

iE-Extensions ProtocolExtensionContainer { {RRCReestab-Initiated-Reporting-with-UERLFReport-ExtIEs} } OPTIONAL,

...

}

RRCReestab-Initiated-Reporting-with-UERLFReport-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCSetup-initiated ::= SEQUENCE {

rRRCSetup-Initiated-Reporting RRCSetup-Initiated-Reporting,

uERLFReportContainer UERLFReportContainer OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { RRCSetup-initiated-ExtIEs} } OPTIONAL,

...

}

RRCSetup-initiated-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCSetup-Initiated-Reporting ::= CHOICE {

rRCSetup-reporting-with-UERLFReport RRCSetup-Initiated-Reporting-with-UERLFReport,

choice-extension ProtocolIE-Single-Container { {RRCSetup-Initiated-Reporting-ExtIEs} }

}

RRCSetup-Initiated-Reporting-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

RRCSetup-Initiated-Reporting-with-UERLFReport ::= SEQUENCE {

uERLFReportContainer UERLFReportContainer,

iE-Extensions ProtocolExtensionContainer { {RRCSetup-Initiated-Reporting-with-UERLFReport-ExtIEs} } OPTIONAL,

...

}

RRCSetup-Initiated-Reporting-with-UERLFReport-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

RRCResumeCause ::= ENUMERATED {

rna-Update,

...

}

-- S

SecondarydataForwardingInfoFromTarget-Item::= SEQUENCE {

secondarydataForwardingInfoFromTarget DataForwardingInfoFromTargetNGRANnode,

iE-Extensions ProtocolExtensionContainer { { SecondarydataForwardingInfoFromTarget-Item-ExtIEs} } OPTIONAL,

...

}

SecondarydataForwardingInfoFromTarget-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecondarydataForwardingInfoFromTarget-List ::= SEQUENCE (SIZE(1..maxnoofMultiConnectivityMinusOne)) OF SecondarydataForwardingInfoFromTarget-Item

SCGConfigurationQuery ::= ENUMERATED {true, ...}

SCGIndicator ::= ENUMERATED{released, ...}

SecondaryRATUsageInformation ::= SEQUENCE {

pDUSessionUsageReport PDUSessionUsageReport OPTIONAL,

qosFlowsUsageReportList QoSFlowsUsageReportList OPTIONAL,

iE-Extension ProtocolExtensionContainer { {SecondaryRATUsageInformation-ExtIEs} } OPTIONAL,

...

}

SecondaryRATUsageInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecurityIndication ::= SEQUENCE {

integrityProtectionIndication ENUMERATED {required, preferred, not-needed, ...},

confidentialityProtectionIndication ENUMERATED {required, preferred, not-needed, ...},

maximumIPdatarate MaximumIPdatarate OPTIONAL,

-- This IE shall be present if the *Integrity Protection* IE within the *Security Indication* IE is present and set to "required" or "preferred". --

iE-Extensions ProtocolExtensionContainer { {SecurityIndication-ExtIEs} } OPTIONAL,

...

}

SecurityIndication-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SecurityResult ::= SEQUENCE {

integrityProtectionResult ENUMERATED {performed, not-performed, ...},

confidentialityProtectionResult ENUMERATED {performed, not-performed, ...},

iE-Extensions ProtocolExtensionContainer { {SecurityResult-ExtIEs} } OPTIONAL,

...

}

SecurityResult-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SensorMeasurementConfiguration ::= SEQUENCE {

sensorMeasConfig SensorMeasConfig,

sensorMeasConfigNameList SensorMeasConfigNameList OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { SensorMeasurementConfiguration-ExtIEs } } OPTIONAL,

...

}

SensorMeasurementConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SensorMeasConfigNameList ::= SEQUENCE (SIZE(1..maxnoofSensorName)) OF SensorName

SensorMeasConfig::= ENUMERATED {setup,...}

SensorName ::= SEQUENCE {

uncompensatedBarometricConfig ENUMERATED {true, ...} OPTIONAL,

ueSpeedConfig ENUMERATED {true, ...} OPTIONAL,

ueOrientationConfig ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {SensorNameConfig-ExtIEs} } OPTIONAL,

...

}

SensorNameConfig-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- Served Cells E-UTRA IEs

ServedCellInformation-E-UTRA ::= SEQUENCE {

e-utra-pci E-UTRAPCI,

e-utra-cgi E-UTRA-CGI,

tac TAC,

ranac RANAC OPTIONAL,

broadcastPLMNs SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF ServedCellInformation-E-UTRA-perBPLMN,

e-utra-mode-info ServedCellInformation-E-UTRA-ModeInfo,

numberofAntennaPorts NumberOfAntennaPorts-E-UTRA OPTIONAL,

prach-configuration E-UTRAPRACHConfiguration OPTIONAL,

mBSFNsubframeInfo MBSFNSubframeInfo-E-UTRA OPTIONAL,

multibandInfo E-UTRAMultibandInfoList OPTIONAL,

freqBandIndicatorPriority ENUMERATED {not-broadcast, broadcast, ...} OPTIONAL,

bandwidthReducedSI ENUMERATED {scheduled, ...} OPTIONAL,

protectedE-UTRAResourceIndication ProtectedE-UTRAResourceIndication OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-BPLMN-ID-Info-EUTRA CRITICALITY ignore EXTENSION BPLMN-ID-Info-EUTRA PRESENCE optional }|

{ ID id-NPRACHConfiguration CRITICALITY ignore EXTENSION NPRACHConfiguration PRESENCE optional},

...

}

ServedCellInformation-E-UTRA-perBPLMN ::= SEQUENCE {

plmn-id PLMN-Identity,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-perBPLMN-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-perBPLMN-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCellInformation-E-UTRA-ModeInfo ::= CHOICE {

fdd ServedCellInformation-E-UTRA-FDDInfo,

tdd ServedCellInformation-E-UTRA-TDDInfo,

choice-extension ProtocolIE-Single-Container{ {ServedCellInformation-E-UTRA-ModeInfo-ExtIEs} }

}

ServedCellInformation-E-UTRA-ModeInfo-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ServedCellInformation-E-UTRA-FDDInfo ::= SEQUENCE {

ul-earfcn E-UTRAARFCN,

dl-earfcn E-UTRAARFCN,

ul-e-utraTxBW E-UTRATransmissionBandwidth,

dl-e-utraTxBW E-UTRATransmissionBandwidth,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-FDDInfo-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-FDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-OffsetOfNbiotChannelNumberToDL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional}|

{ ID id-OffsetOfNbiotChannelNumberToUL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional},

...

}

ServedCellInformation-E-UTRA-TDDInfo ::= SEQUENCE {

earfcn E-UTRAARFCN,

e-utraTxBW E-UTRATransmissionBandwidth,

subframeAssignmnet ENUMERATED {sa0,sa1,sa2,sa3,sa4,sa5,sa6,...},

specialSubframeInfo SpecialSubframeInfo-E-UTRA,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-E-UTRA-TDDInfo-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-E-UTRA-TDDInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-OffsetOfNbiotChannelNumberToDL-EARFCN CRITICALITY reject EXTENSION OffsetOfNbiotChannelNumberToEARFCN PRESENCE optional}|

{ ID id-NBIoT-UL-DL-AlignmentOffset CRITICALITY reject EXTENSION NBIoT-UL-DL-AlignmentOffset PRESENCE optional},

...

}

ServedCells-E-UTRA ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-E-UTRA-Item

ServedCells-E-UTRA-Item ::= SEQUENCE {

served-cell-info-E-UTRA ServedCellInformation-E-UTRA,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCells-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

ServedCells-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional },

...

}

ServedCellsToUpdate-E-UTRA ::= SEQUENCE {

served-Cells-ToAdd-E-UTRA ServedCells-E-UTRA OPTIONAL,

served-Cells-ToModify-E-UTRA ServedCells-ToModify-E-UTRA OPTIONAL,

served-Cells-ToDelete-E-UTRA SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF E-UTRA-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellsToUpdate-E-UTRA-ExtIEs} } OPTIONAL,

...

}

ServedCellsToUpdate-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-ToModify-E-UTRA ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-ToModify-E-UTRA-Item

ServedCells-ToModify-E-UTRA-Item ::= SEQUENCE {

old-ECGI E-UTRA-CGI,

served-cell-info-E-UTRA ServedCellInformation-E-UTRA,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

deactivation-indication ENUMERATED {deactivated, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Served-cells-ToModify-E-UTRA-Item-ExtIEs} } OPTIONAL,

...

}

Served-cells-ToModify-E-UTRA-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- Served Cells NR IEs

ServedCellInformation-NR ::= SEQUENCE {

nrPCI NRPCI,

cellID NR-CGI,

tac TAC,

ranac RANAC OPTIONAL,

broadcastPLMN BroadcastPLMNs,

nrModeInfo NRModeInfo,

measurementTimingConfiguration OCTET STRING,

connectivitySupport Connectivity-Support,

iE-Extensions ProtocolExtensionContainer { {ServedCellInformation-NR-ExtIEs} } OPTIONAL,

...

}

ServedCellInformation-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-BPLMN-ID-Info-NR CRITICALITY ignore EXTENSION BPLMN-ID-Info-NR PRESENCE optional }|

{ ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

{ ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

{ ID id-NRCellPRACHConfig CRITICALITY ignore EXTENSION NRCellPRACHConfig PRESENCE optional }|

{ ID id-NPN-Broadcast-Information CRITICALITY reject EXTENSION NPN-Broadcast-Information PRESENCE optional }|

{ ID id-CSI-RSTransmissionIndication CRITICALITY ignore EXTENSION CSI-RSTransmissionIndication PRESENCE optional } |

{ ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional },

...

}

SFN-Offset ::= SEQUENCE {

sFN-Time-Offset BIT STRING (SIZE(24)),

iE-Extensions ProtocolExtensionContainer { {SFN-Offset-ExtIEs} } OPTIONAL,

...

}

SFN-Offset-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-NR ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-NR-Item

ServedCells-NR-Item ::= SEQUENCE {

served-cell-info-NR ServedCellInformation-NR,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCells-NR-Item-ExtIEs} } OPTIONAL,

...

}

ServedCells-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCells-ToModify-NR ::= SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF ServedCells-ToModify-NR-Item

ServedCells-ToModify-NR-Item ::= SEQUENCE {

old-NR-CGI NR-CGI,

served-cell-info-NR ServedCellInformation-NR,

neighbour-info-NR NeighbourInformation-NR OPTIONAL,

neighbour-info-E-UTRA NeighbourInformation-E-UTRA OPTIONAL,

deactivation-indication ENUMERATED {deactivated, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {Served-cells-ToModify-NR-Item-ExtIEs} } OPTIONAL,

...

}

Served-cells-ToModify-NR-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

ServedCellsToUpdate-NR ::= SEQUENCE {

served-Cells-ToAdd-NR ServedCells-NR OPTIONAL,

served-Cells-ToModify-NR ServedCells-ToModify-NR OPTIONAL,

served-Cells-ToDelete-NR SEQUENCE (SIZE (1..maxnoofCellsinNG-RANnode)) OF NR-CGI OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {ServedCellsToUpdate-NR-ExtIEs} } OPTIONAL,

...

}

ServedCellsToUpdate-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType ::= CHOICE {

ul-onlySharing SharedResourceType-UL-OnlySharing,

ul-and-dl-Sharing SharedResourceType-ULDL-Sharing,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ExtIEs} }

}

SharedResourceType-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-UL-OnlySharing ::= SEQUENCE {

ul-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-UL-OnlySharing-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-UL-OnlySharing-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType-ULDL-Sharing ::= CHOICE {

ul-resources SharedResourceType-ULDL-Sharing-UL-Resources,

dl-resources SharedResourceType-ULDL-Sharing-DL-Resources,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-UL-Resources ::= CHOICE {

unchanged NULL,

changed SharedResourceType-ULDL-Sharing-UL-ResourcesChanged,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-UL-Resources-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-UL-Resources-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-UL-ResourcesChanged ::= SEQUENCE {

ul-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-ULDL-Sharing-UL-ResourcesChanged-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-ULDL-Sharing-UL-ResourcesChanged-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SharedResourceType-ULDL-Sharing-DL-Resources ::= CHOICE {

unchanged NULL,

changed SharedResourceType-ULDL-Sharing-DL-ResourcesChanged,

choice-extension ProtocolIE-Single-Container { {SharedResourceType-ULDL-Sharing-DL-Resources-ExtIEs} }

}

SharedResourceType-ULDL-Sharing-DL-Resources-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SharedResourceType-ULDL-Sharing-DL-ResourcesChanged ::= SEQUENCE {

dl-resourceBitmap DataTrafficResources,

iE-Extensions ProtocolExtensionContainer { {SharedResourceType-ULDL-Sharing-DL-ResourcesChanged-ExtIEs} } OPTIONAL,

...

}

SharedResourceType-ULDL-Sharing-DL-ResourcesChanged-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SliceAvailableCapacity ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF SliceAvailableCapacity-Item

SliceAvailableCapacity-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIAvailableCapacity-List SNSSAIAvailableCapacity-List,

iE-Extensions ProtocolExtensionContainer { { SliceAvailableCapacity-Item-ExtIEs} } OPTIONAL,

...

}

SliceAvailableCapacity-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAIAvailableCapacity-List ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAIAvailableCapacity-Item

SNSSAIAvailableCapacity-Item ::= SEQUENCE {

sNSSAI S-NSSAI,

sliceAvailableCapacityValueDownlink INTEGER (0..100),

sliceAvailableCapacityValueUplink INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SNSSAIAvailableCapacity-Item-ExtIEs } } OPTIONAL

}

SNSSAIAvailableCapacity-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SliceSupport-List ::= SEQUENCE (SIZE(1..maxnoofSliceItems)) OF S-NSSAI

SliceToReport-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF SliceToReport-List-Item

SliceToReport-List-Item ::= SEQUENCE {

pLMNIdentity PLMN-Identity,

sNSSAIlist SNSSAI-list,

iE-Extensions ProtocolExtensionContainer { { SliceToReport-List-Item-ExtIEs} } OPTIONAL,

...

}

SliceToReport-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNSSAI-list ::= SEQUENCE (SIZE(1.. maxnoofSliceItems)) OF SNSSAI-Item

SNSSAI-Item ::= SEQUENCE {

sNSSAI S-NSSAI,

iE-Extensions ProtocolExtensionContainer { { SNSSAI-Item-ExtIEs } } OPTIONAL

}

SNSSAI-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SlotConfiguration-List ::= SEQUENCE (SIZE (1..maxnoofslots)) OF SlotConfiguration-List-Item

SlotConfiguration-List-Item ::= SEQUENCE {

slotIndex INTEGER (0..5119),

symbolAllocation-in-Slot SymbolAllocation-in-Slot,

iE-Extensions ProtocolExtensionContainer { {SlotConfiguration-List-Item-ExtIEs} } OPTIONAL,

...

}

SlotConfiguration-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

S-NG-RANnode-SecurityKey ::= BIT STRING (SIZE(256))

S-NG-RANnode-Addition-Trigger-Ind ::= ENUMERATED {

sn-change,

inter-MN-HO,

intra-MN-HO,

...

}

S-NSSAI ::= SEQUENCE {

sst OCTET STRING (SIZE(1)),

sd OCTET STRING (SIZE(3)) OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {S-NSSAI-ExtIEs} } OPTIONAL,

...

}

S-NSSAI-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SNTriggered ::=ENUMERATED{

true,

...

}

SpecialSubframeInfo-E-UTRA ::= SEQUENCE {

specialSubframePattern SpecialSubframePatterns-E-UTRA,

cyclicPrefixDL CyclicPrefix-E-UTRA-DL,

cyclicPrefixUL CyclicPrefix-E-UTRA-UL,

iE-Extensions ProtocolExtensionContainer { {SpecialSubframeInfo-E-UTRA-ExtIEs} } OPTIONAL,

...

}

SpecialSubframeInfo-E-UTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SpecialSubframePatterns-E-UTRA ::= ENUMERATED {

ssp0,

ssp1,

ssp2,

ssp3,

ssp4,

ssp5,

ssp6,

ssp7,

ssp8,

ssp9,

ssp10,

...

}

SpectrumSharingGroupID ::= INTEGER (1..maxnoofCellsinNG-RANnode)

SplitSessionIndicator ::= ENUMERATED {

split,

...

}

SplitSRBsTypes ::= ENUMERATED {srb1, srb2, srb1and2, ...}

SSBAreaCapacityValue-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBAreaCapacityValue-List-Item

SSBAreaCapacityValue-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

ssbAreaCapacityValue INTEGER (0..100),

iE-Extensions ProtocolExtensionContainer { { SSBAreaCapacityValue-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBAreaCapacityValue-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SSBAreaRadioResourceStatus-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBAreaRadioResourceStatus-List-Item

SSBAreaRadioResourceStatus-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

ssb-Area-DL-GBR-PRB-usage DL-GBR-PRB-usage,

ssb-Area-UL-GBR-PRB-usage UL-GBR-PRB-usage,

ssb-Area-dL-non-GBR-PRB-usage DL-non-GBR-PRB-usage,

ssb-Area-uL-non-GBR-PRB-usage UL-non-GBR-PRB-usage,

ssb-Area-dL-Total-PRB-usage DL-Total-PRB-usage,

ssb-Area-uL-Total-PRB-usage UL-Total-PRB-usage,

iE-Extensions ProtocolExtensionContainer { { SSBAreaRadioResourceStatus-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBAreaRadioResourceStatus-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-DL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION DL-scheduling-PDCCH-CCE-usage PRESENCE optional}|

{ ID id-UL-scheduling-PDCCH-CCE-usage CRITICALITY ignore EXTENSION UL-scheduling-PDCCH-CCE-usage PRESENCE optional},

...

}

SSB-PositionsInBurst ::= CHOICE {

shortBitmap BIT STRING (SIZE (4)),

mediumBitmap BIT STRING (SIZE (8)),

longBitmap BIT STRING (SIZE (64)),

choice-extension ProtocolIE-Single-Container { {SSB-PositionsInBurst-ExtIEs} }

}

SSB-PositionsInBurst-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SSBToReport-List ::= SEQUENCE (SIZE(1..maxnoofSSBAreas)) OF SSBToReport-List-Item

SSBToReport-List-Item ::= SEQUENCE {

sSBIndex INTEGER(0..63),

iE-Extensions ProtocolExtensionContainer { { SSBToReport-List-Item-ExtIEs} } OPTIONAL,

...

}

SSBToReport-List-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SUL-FrequencyBand ::= INTEGER (1..1024)

SUL-Information ::= SEQUENCE {

sulFrequencyInfo NRARFCN,

sulTransmissionBandwidth NRTransmissionBandwidth,

iE-Extensions ProtocolExtensionContainer { {SUL-Information-ExtIEs} } OPTIONAL,

...

}

SUL-Information-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-CarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

{ ID id-FrequencyShift7p5khz CRITICALITY ignore EXTENSION FrequencyShift7p5khz PRESENCE optional },

...

}

SupportedSULBandList ::= SEQUENCE (SIZE(1..maxnoofNRCellBands)) OF SupportedSULBandItem

SupportedSULBandItem ::= SEQUENCE {

sulBandItem SUL-FrequencyBand,

iE-Extensions ProtocolExtensionContainer { {SupportedSULBandItem-ExtIEs} } OPTIONAL,

...

}

SupportedSULBandItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot ::= CHOICE {

allDL SymbolAllocation-in-Slot-AllDL,

allUL SymbolAllocation-in-Slot-AllUL,

bothDLandUL SymbolAllocation-in-Slot-BothDLandUL,

choice-extension ProtocolIE-Single-Container { {SymbolAllocation-in-Slot-ExtIEs} }

}

SymbolAllocation-in-Slot-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

SymbolAllocation-in-Slot-AllDL ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-AllDL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-AllDL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot-AllUL ::= SEQUENCE {

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-AllUL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-AllUL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

SymbolAllocation-in-Slot-BothDLandUL ::= SEQUENCE {

numberofDLSymbols INTEGER (0..13),

numberofULSymbols INTEGER (0..13),

iE-Extension ProtocolExtensionContainer { {SymbolAllocation-in-Slot-BothDLandUL-ExtIEs} } OPTIONAL,

...

}

SymbolAllocation-in-Slot-BothDLandUL-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- T

TABasedMDT ::= SEQUENCE {

tAListforMDT TAListforMDT,

iE-Extensions ProtocolExtensionContainer { {TABasedMDT-ExtIEs} } OPTIONAL,

...

}

TABasedMDT-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TAIBasedMDT ::= SEQUENCE {

tAIListforMDT TAIListforMDT,

iE-Extensions ProtocolExtensionContainer { {TAIBasedMDT-ExtIEs} } OPTIONAL,

...

}

TAIBasedMDT-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TAIListforMDT ::= SEQUENCE (SIZE(1..maxnoofTAforMDT)) OF TAIforMDT-Item

TAIforMDT-Item ::= SEQUENCE {

plmn-ID PLMN-Identity,

tAC TAC,

iE-Extensions ProtocolExtensionContainer { {TAIforMDT-Item-ExtIEs} } OPTIONAL,

...

}

TAIforMDT-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TAC ::= OCTET STRING (SIZE (3))

TAISupport-List ::= SEQUENCE (SIZE(1..maxnoofsupportedTACs)) OF TAISupport-Item

TAISupport-Item ::= SEQUENCE {

tac TAC,

broadcastPLMNs SEQUENCE (SIZE(1..maxnoofsupportedPLMNs)) OF BroadcastPLMNinTAISupport-Item,

iE-Extensions ProtocolExtensionContainer { {TAISupport-Item-ExtIEs} } OPTIONAL,

...

}

TAISupport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TAListforMDT ::= SEQUENCE (SIZE(1..maxnoofTAforMDT)) OF TAC

TargetCellinEUTRAN ::= OCTET STRING -- This IE is to be encoded according to *Global Cell ID* in the *Last Visited E-UTRAN Cell Information* IE, as defined in in TS 36.413 [31]

Target-CGI ::= CHOICE {

nr NR-CGI,

e-utra E-UTRA-CGI,

choice-extension ProtocolIE-Single-Container { {TargetCGI-ExtIEs} }

}

TargetCGI-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

TDDULDLConfigurationCommonNR ::= OCTET STRING

TargetCellList ::= SEQUENCE (SIZE(1..maxnoofCHOcells)) OF TargetCellList-Item

TargetCellList-Item ::= SEQUENCE {

target-cell Target-CGI,

iE-Extensions ProtocolExtensionContainer { { TargetCellList-Item-ExtIEs} } OPTIONAL

}

TargetCellList-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

Threshold-RSRQ ::= INTEGER(0..34)

Threshold-RSRP ::= INTEGER(0..97)

Threshold-SINR ::= INTEGER(0..127)

TimeToTrigger ::= ENUMERATED {ms0, ms40, ms64, ms80, ms100, ms128, ms160, ms256, ms320, ms480, ms512, ms640, ms1024, ms1280, ms2560, ms5120}

TimeToWait ::= ENUMERATED {

v1s,

v2s,

v5s,

v10s,

v20s,

v60s,

...

}

TNLConfigurationInfo ::= SEQUENCE {

extendedUPTransportLayerAddressesToAdd ExtTLAs OPTIONAL,

extendedUPTransportLayerAddressesToRemove ExtTLAs OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {TNLConfigurationInfo-ExtIEs} } OPTIONAL,

...

}

TNLConfigurationInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLA-To-Add-List ::= SEQUENCE (SIZE(1..maxnoofTNLAssociations)) OF TNLA-To-Add-Item

TNLA-To-Add-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CPTransportLayerInformation,

tNLAssociationUsage TNLAssociationUsage,

iE-Extensions ProtocolExtensionContainer { { TNLA-To-Add-Item-ExtIEs} } OPTIONAL

}

TNLA-To-Add-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLA-To-Update-List ::= SEQUENCE (SIZE(1..maxnoofTNLAssociations)) OF TNLA-To-Update-Item

TNLA-To-Update-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CPTransportLayerInformation,

tNLAssociationUsage TNLAssociationUsage OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { TNLA-To-Update-Item-ExtIEs} } OPTIONAL

}

TNLA-To-Update-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLA-To-Remove-List ::= SEQUENCE (SIZE(1..maxnoofTNLAssociations)) OF TNLA-To-Remove-Item

TNLA-To-Remove-Item::= SEQUENCE {

tNLAssociationTransportLayerAddress CPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { TNLA-To-Remove-Item-ExtIEs} } OPTIONAL

}

TNLA-To-Remove-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLA-Setup-List ::= SEQUENCE (SIZE(1..maxnoofTNLAssociations)) OF TNLA-Setup-Item

TNLA-Setup-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CPTransportLayerInformation,

iE-Extensions ProtocolExtensionContainer { { TNLA-Setup-Item-ExtIEs} } OPTIONAL,

...

}

TNLA-Setup-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLA-Failed-To-Setup-List ::= SEQUENCE (SIZE(1..maxnoofTNLAssociations)) OF TNLA-Failed-To-Setup-Item

TNLA-Failed-To-Setup-Item ::= SEQUENCE {

tNLAssociationTransportLayerAddress CPTransportLayerInformation,

cause Cause,

iE-Extensions ProtocolExtensionContainer { { TNLA-Failed-To-Setup-Item-ExtIEs} } OPTIONAL

}

TNLA-Failed-To-Setup-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TNLAssociationUsage ::= ENUMERATED {

ue,

non-ue,

both,

...

}

TransportLayerAddress ::= BIT STRING (SIZE(1..160, ...))

TraceActivation ::= SEQUENCE {

ng-ran-TraceID NG-RANTraceID,

interfaces-to-trace BIT STRING { ng-c (0), x-nc (1), uu (2), f1-c (3), e1 (4)} (SIZE(8)),

trace-depth Trace-Depth,

trace-coll-address TransportLayerAddress,

ie-Extension ProtocolExtensionContainer { {TraceActivation-ExtIEs} } OPTIONAL,

...

}

TraceActivation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

-- Extension to support MDT –

{ ID id-TraceCollectionEntityURI CRITICALITY ignore EXTENSION URIaddress PRESENCE optional}|

{ ID id-MDT-Configuration CRITICALITY ignore EXTENSION MDT-Configuration PRESENCE optional},

...

}

Trace-Depth ::= ENUMERATED {

minimum,

medium,

maximum,

minimumWithoutVendorSpecificExtension,

mediumWithoutVendorSpecificExtension,

maximumWithoutVendorSpecificExtension,

...

}

TSCTrafficCharacteristics ::= SEQUENCE {

tSCAssistanceInformationDownlink TSCAssistanceInformation OPTIONAL,

tSCAssistanceInformationUplink TSCAssistanceInformation OPTIONAL,

ie-Extension ProtocolExtensionContainer { {TSCTrafficCharacteristics-ExtIEs} } OPTIONAL,

...

}

TSCTrafficCharacteristics-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TSCAssistanceInformation ::= SEQUENCE {

periodicity INTEGER (0.. 640000, ...),

burstArrivalTime OCTET STRING OPTIONAL,

ie-Extension ProtocolExtensionContainer { { TSCAssistanceInformation-ExtIEs} } OPTIONAL,

...

}

TSCAssistanceInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

TypeOfError ::= ENUMERATED {

not-understood,

missing,

...

}

-- U

UEAggregateMaximumBitRate ::= SEQUENCE {

dl-UE-AMBR BitRate,

ul-UE-AMBR BitRate,

iE-Extension ProtocolExtensionContainer { {UEAggregateMaximumBitRate-ExtIEs} } OPTIONAL,

...

}

UEAggregateMaximumBitRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UEContextKeptIndicator ::= ENUMERATED {true, ...}

UEContextID ::= CHOICE {

rRCResume UEContextIDforRRCResume,

rRRCReestablishment UEContextIDforRRCReestablishment,

choice-extension ProtocolIE-Single-Container { {UEContextID-ExtIEs} }

}

UEContextID-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UEContextIDforRRCResume ::= SEQUENCE {

i-rnti I-RNTI,

allocated-c-rnti C-RNTI,

accessPCI NG-RAN-CellPCI,

iE-Extension ProtocolExtensionContainer { {UEContextIDforRRCResume-ExtIEs} } OPTIONAL,

...

}

UEContextIDforRRCResume-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UEContextIDforRRCReestablishment ::= SEQUENCE {

c-rnti C-RNTI,

failureCellPCI NG-RAN-CellPCI,

iE-Extension ProtocolExtensionContainer { {UEContextIDforRRCReestablishment-ExtIEs} } OPTIONAL,

...

}

UEContextIDforRRCReestablishment-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UEContextInfoRetrUECtxtResp ::= SEQUENCE {

ng-c-UE-signalling-ref AMF-UE-NGAP-ID,

signalling-TNL-at-source CPTransportLayerInformation,

ueSecurityCapabilities UESecurityCapabilities,

securityInformation AS-SecurityInformation,

ue-AMBR UEAggregateMaximumBitRate,

pduSessionResourcesToBeSetup-List PDUSessionResourcesToBeSetup-List,

rrc-Context OCTET STRING,

mobilityRestrictionList MobilityRestrictionList OPTIONAL,

indexToRatFrequencySelectionPriority RFSP-Index OPTIONAL,

iE-Extension ProtocolExtensionContainer { {UEContextInfoRetrUECtxtResp-ExtIEs} } OPTIONAL,

...

}

UEContextInfoRetrUECtxtResp-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-FiveGCMobilityRestrictionListContainer CRITICALITY ignore EXTENSION FiveGCMobilityRestrictionListContainer PRESENCE optional }|

{ ID id-NRUESidelinkAggregateMaximumBitRate CRITICALITY ignore EXTENSION NRUESidelinkAggregateMaximumBitRate PRESENCE optional }|

{ ID id-LTEUESidelinkAggregateMaximumBitRate CRITICALITY ignore EXTENSION LTEUESidelinkAggregateMaximumBitRate PRESENCE optional }|

{ ID id-UERadioCapabilityID CRITICALITY reject EXTENSION UERadioCapabilityID PRESENCE optional }|

{ ID id-UESliceMaximumBitRateList CRITICALITY reject EXTENSION UESliceMaximumBitRateList PRESENCE optional },

...

}

UEHistoryInformation ::= SEQUENCE (SIZE(1..maxnoofCellsinUEHistoryInfo)) OF LastVisitedCell-Item

UEHistoryInformationFromTheUE ::= CHOICE {

nR NRMobilityHistoryReport,

choice-extension ProtocolIE-Single-Container { {UEHistoryInformationFromTheUE-ExtIEs} }

}

UEHistoryInformationFromTheUE-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UEIdentityIndexValue ::= CHOICE {

indexLength10 BIT STRING (SIZE(10)),

choice-extension ProtocolIE-Single-Container { {UEIdentityIndexValue-ExtIEs} }

}

UEIdentityIndexValue-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UERadioCapabilityForPaging ::= SEQUENCE {

uERadioCapabilityForPagingOfNR UERadioCapabilityForPagingOfNR OPTIONAL,

uERadioCapabilityForPagingOfEUTRA UERadioCapabilityForPagingOfEUTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {UERadioCapabilityForPaging-ExtIEs} } OPTIONAL,

...

}

UERadioCapabilityForPaging-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UERadioCapabilityForPagingOfNR ::= OCTET STRING

UERadioCapabilityForPagingOfEUTRA ::= OCTET STRING

UERadioCapabilityID ::= OCTET STRING

UERANPagingIdentity ::= CHOICE {

i-RNTI-full BIT STRING ( SIZE (40)),

choice-extension ProtocolIE-Single-Container { {UERANPagingIdentity-ExtIEs} }

}

UERANPagingIdentity-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UERLFReportContainer ::= CHOICE {

nR-UERLFReportContainer UERLFReportContainerNR,

lTE-UERLFReportContainer UERLFReportContainerLTE,

choice-Extension ProtocolIE-Single-Container { {UERLFReportContainer-ExtIEs} }

}

UERLFReportContainer-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UERLFReportContainerLTE ::= OCTET STRING

-- This IE is a transparent container and shall be encoded as the *RLF-Report-r9* IE contained in the UEInformationResponse message (TS 36.331 [14])

UERLFReportContainerNR ::= OCTET STRING

-- This IE is a transparent container and shall be encoded as the *nr-RLF-Report-r*16 IE contained in the UEInformationResponse message (TS 38.331 [10])

UESliceMaximumBitRateList ::= SEQUENCE (SIZE(1.. maxnoofSMBR)) OF UESliceMaximumBitRate-Item

UESliceMaximumBitRate-Item ::= SEQUENCE {

s-NSSAI S-NSSAI,

dl-UE-Slice-MBR BitRate,

ul-UE-Slice-MBR BitRate,

iE-Extensions ProtocolExtensionContainer { { UESliceMaximumBitRate-Item-ExtIEs} } OPTIONAL,

...

}

UESliceMaximumBitRate-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UESecurityCapabilities ::= SEQUENCE {

nr-EncyptionAlgorithms BIT STRING {nea1-128(1),

nea2-128(2),

nea3-128(3)} (SIZE(16, ...)),

nr-IntegrityProtectionAlgorithms BIT STRING {nia1-128(1),

nia2-128(2),

nia3-128(3)} (SIZE(16, ...)),

e-utra-EncyptionAlgorithms BIT STRING {eea1-128(1),

eea2-128(2),

eea3-128(3)} (SIZE(16, ...)),

e-utra-IntegrityProtectionAlgorithms BIT STRING {eia1-128(1),

eia2-128(2),

eia3-128(3)} (SIZE(16, ...)),

iE-Extension ProtocolExtensionContainer { {UESecurityCapabilities-ExtIEs} } OPTIONAL,

...

}

UESecurityCapabilities-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UESpecificDRX ::= ENUMERATED {

v32,

v64,

v128,

v256,

...

}

ULConfiguration::= SEQUENCE {

uL-PDCP UL-UE-Configuration,

iE-Extensions ProtocolExtensionContainer { {ULConfiguration-ExtIEs} } OPTIONAL,

...

}

ULConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

UL-UE-Configuration::= ENUMERATED {no-data, shared, only, ...}

ULForwarding ::= ENUMERATED {ul-forwarding-proposed, ...}

ULForwardingProposal ::= ENUMERATED {ul-forwarding-proposed, ...}

UL-GBR-PRB-usage::= INTEGER (0..100)

UL-non-GBR-PRB-usage::= INTEGER (0..100)

UL-Total-PRB-usage::= INTEGER (0..100)

UPTransportLayerInformation ::= CHOICE {

gtpTunnel GTPtunnelTransportLayerInformation,

choice-extension ProtocolIE-Single-Container { {UPTransportLayerInformation-ExtIEs} }

}

UPTransportLayerInformation-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

UPTransportParameters ::= SEQUENCE (SIZE(1..maxnoofSCellGroupsplus1)) OF UPTransportParametersItem

UPTransportParametersItem ::= SEQUENCE {

upTNLInfo UPTransportLayerInformation,

cellGroupID CellGroupID,

iE-Extension ProtocolExtensionContainer { {UPTransportParametersItem-ExtIEs} } OPTIONAL,

...

}

UPTransportParametersItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ID id-QoS-Mapping-Information CRITICALITY reject EXTENSION QoS-Mapping-Information PRESENCE optional},

...

}

UserPlaneTrafficActivityReport ::= ENUMERATED {inactive, re-activated, ...}

URIaddress ::= VisibleString

-- V

VehicleUE ::= ENUMERATED {

authorized,

not-authorized,

...

}

VolumeTimedReportList ::= SEQUENCE (SIZE(1..maxnooftimeperiods)) OF VolumeTimedReport-Item

VolumeTimedReport-Item ::= SEQUENCE {

startTimeStamp OCTET STRING (SIZE(4)),

endTimeStamp OCTET STRING (SIZE(4)),

usageCountUL INTEGER (0..18446744073709551615),

usageCountDL INTEGER (0..18446744073709551615),

iE-Extensions ProtocolExtensionContainer { {VolumeTimedReport-Item-ExtIEs} } OPTIONAL,

...

}

VolumeTimedReport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-- W

WLANMeasurementConfiguration ::= SEQUENCE {

wlanMeasConfig WLANMeasConfig,

wlanMeasConfigNameList WLANMeasConfigNameList OPTIONAL,

wlan-rssi ENUMERATED {true, ...} OPTIONAL,

wlan-rtt ENUMERATED {true, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { WLANMeasurementConfiguration-ExtIEs } } OPTIONAL,

...

}

WLANMeasurementConfiguration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

WLANMeasConfigNameList ::= SEQUENCE (SIZE(1..maxnoofWLANName)) OF WLANName

WLANMeasConfig::= ENUMERATED {setup,...}

WLANName ::= OCTET STRING (SIZE (1..32))

-- X

XnBenefitValue ::= INTEGER (1..8, ...)

-- Y

-- Z

END

-- ASN1STOP

9.3.6 Common definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Common definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-CommonDataTypes {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-CommonDataTypes (3) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Extension constants

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

maxPrivateIEs INTEGER ::= 65535

maxProtocolExtensions INTEGER ::= 65535

maxProtocolIEs INTEGER ::= 65535

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Common Data Types

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Criticality ::= ENUMERATED { reject, ignore, notify }

Presence ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID ::= CHOICE {

local INTEGER (0.. maxPrivateIEs),

global OBJECT IDENTIFIER

}

ProcedureCode ::= INTEGER (0..255)

ProtocolIE-ID ::= INTEGER (0..maxProtocolIEs)

TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome}

END

-- ASN1STOP

9.3.7 Constant definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Constant definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-Constants {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-Access (22) modules (3) xnap (2) version1 (1) xnap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

ProcedureCode,

ProtocolIE-ID

FROM XnAP-CommonDataTypes;

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Elementary Procedures

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

id-handoverPreparation ProcedureCode ::= 0

id-sNStatusTransfer ProcedureCode ::= 1

id-handoverCancel ProcedureCode ::= 2

id-retrieveUEContext ProcedureCode ::= 3

id-rANPaging ProcedureCode ::= 4

id-xnUAddressIndication ProcedureCode ::= 5

id-uEContextRelease ProcedureCode ::= 6

id-sNGRANnodeAdditionPreparation ProcedureCode ::= 7

id-sNGRANnodeReconfigurationCompletion ProcedureCode ::= 8

id-mNGRANnodeinitiatedSNGRANnodeModificationPreparation ProcedureCode ::= 9

id-sNGRANnodeinitiatedSNGRANnodeModificationPreparation ProcedureCode ::= 10

id-mNGRANnodeinitiatedSNGRANnodeRelease ProcedureCode ::= 11

id-sNGRANnodeinitiatedSNGRANnodeRelease ProcedureCode ::= 12

id-sNGRANnodeCounterCheck ProcedureCode ::= 13

id-sNGRANnodeChange ProcedureCode ::= 14

id-rRCTransfer ProcedureCode ::= 15

id-xnRemoval ProcedureCode ::= 16

id-xnSetup ProcedureCode ::= 17

id-nGRANnodeConfigurationUpdate ProcedureCode ::= 18

id-cellActivation ProcedureCode ::= 19

id-reset ProcedureCode ::= 20

id-errorIndication ProcedureCode ::= 21

id-privateMessage ProcedureCode ::= 22

id-notificationControl ProcedureCode ::= 23

id-activityNotification ProcedureCode ::= 24

id-e-UTRA-NR-CellResourceCoordination ProcedureCode ::= 25

id-secondaryRATDataUsageReport ProcedureCode ::= 26

id-deactivateTrace ProcedureCode ::= 27

id-traceStart ProcedureCode ::= 28

id-handoverSuccess ProcedureCode ::= 29

id-conditionalHandoverCancel ProcedureCode ::= 30

id-earlyStatusTransfer ProcedureCode ::= 31

id-failureIndication ProcedureCode ::= 32

id-handoverReport ProcedureCode ::= 33

id-resourceStatusReportingInitiation ProcedureCode ::= 34

id-resourceStatusReporting ProcedureCode ::= 35

id-mobilitySettingsChange ProcedureCode ::= 36

id-accessAndMobilityIndication ProcedureCode ::= 37

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Lists

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

maxEARFCN INTEGER ::= 262143

maxnoofAllowedAreas INTEGER ::= 16

maxnoofAMFRegions INTEGER ::= 16

maxnoofAoIs INTEGER ::= 64

maxnoofBluetoothName INTEGER ::= 4

maxnoofBPLMNs INTEGER ::= 12

maxnoofCAGs INTEGER ::= 12

maxnoofCAGsperPLMN INTEGER ::= 256

maxnoofCellIDforMDT INTEGER ::= 32

maxnoofCellsinAoI INTEGER ::= 256

maxnoofCellsinUEHistoryInfo INTEGER ::= 16

maxnoofCellsinNG-RANnode INTEGER ::= 16384

maxnoofCellsinRNA INTEGER ::= 32

maxnoofCellsUEMovingTrajectory INTEGER ::= 16

maxnoofDRBs INTEGER ::= 32

maxnoofEUTRABands INTEGER ::= 16

maxnoofEUTRABPLMNs INTEGER ::= 6

maxnoofEPLMNs INTEGER ::= 15

maxnoofExtSliceItems INTEGER ::= 65535

maxnoofEPLMNsplus1 INTEGER ::= 16

maxnoofForbiddenTACs INTEGER ::= 4096

maxnoofFreqforMDT INTEGER ::= 8

maxnoofMBSFNEUTRA INTEGER ::= 8

maxnoofMDTPLMNs INTEGER ::= 16

maxnoofMultiConnectivityMinusOne INTEGER ::= 3

maxnoofNeighbours INTEGER ::= 1024

maxnoofNeighPCIforMDT INTEGER ::= 32

maxnoofNIDs INTEGER ::= 12

maxnoofNRCellBands INTEGER ::= 32

maxnoofPLMNs INTEGER ::= 16

maxnoofPDUSessions INTEGER ::= 256

maxnoofProtectedResourcePatterns INTEGER ::= 16

maxnoofQoSFlows INTEGER ::= 64

maxnoofQoSParaSets INTEGER ::= 8

maxnoofRANAreaCodes INTEGER ::= 32

maxnoofRANAreasinRNA INTEGER ::= 16

maxnoofRANNodesinAoI INTEGER ::= 64

maxnoofSCellGroups INTEGER ::= 3

maxnoofSCellGroupsplus1 INTEGER ::= 4

maxnoofSensorName INTEGER ::= 3

maxnoofSliceItems INTEGER ::= 1024

maxnoofSNPNIDs INTEGER ::= 12

maxnoofsupportedPLMNs INTEGER ::= 12

maxnoofsupportedTACs INTEGER ::= 256

maxnoofTAforMDT INTEGER ::= 8

maxnoofTAI INTEGER ::= 16

maxnoofTAIsinAoI INTEGER ::= 16

maxnooftimeperiods INTEGER ::= 2

maxnoofTNLAssociations INTEGER ::= 32

maxnoofUEContexts INTEGER ::= 8192

maxNRARFCN INTEGER ::= 3279165

maxNrOfErrors INTEGER ::= 256

maxnoofslots INTEGER ::= 5120

maxnoofExtTLAs INTEGER ::= 16

maxnoofGTPTLAs INTEGER ::= 16

maxnoofCHOcells INTEGER ::= 8

maxnoofPC5QoSFlows INTEGER ::= 2064

maxnoofSSBAreas INTEGER ::= 64

maxnoofRACHReports INTEGER ::= 64

maxnoofNRSCSs INTEGER ::= 5

maxnoofPhysicalResourceBlocks INTEGER ::= 275

maxnoofAdditionalPDCPDuplicationTNL INTEGER ::= 2

maxnoofRLCDuplicationstate INTEGER ::= 3

maxnoofWLANName INTEGER ::= 4

maxnoofNonAnchorCarrierFreqConfig INTEGER ::= 15

maxnoofDataForwardingTunneltoE-UTRAN INTEGER ::= 256

maxnoofSMBR INTEGER ::= 8

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

id-ActivatedServedCells ProtocolIE-ID ::= 0

id-ActivationIDforCellActivation ProtocolIE-ID ::= 1

id-admittedSplitSRB ProtocolIE-ID ::= 2

id-admittedSplitSRBrelease ProtocolIE-ID ::= 3

id-AMF-Region-Information ProtocolIE-ID ::= 4

id-AssistanceDataForRANPaging ProtocolIE-ID ::= 5

id-BearersSubjectToCounterCheck ProtocolIE-ID ::= 6

id-Cause ProtocolIE-ID ::= 7

id-cellAssistanceInfo-NR ProtocolIE-ID ::= 8

id-ConfigurationUpdateInitiatingNodeChoice ProtocolIE-ID ::= 9

id-CriticalityDiagnostics ProtocolIE-ID ::= 10

id-XnUAddressInfoperPDUSession-List ProtocolIE-ID ::= 11

id-DRBsSubjectToStatusTransfer-List ProtocolIE-ID ::= 12

id-ExpectedUEBehaviour ProtocolIE-ID ::= 13

id-GlobalNG-RAN-node-ID ProtocolIE-ID ::= 14

id-GUAMI ProtocolIE-ID ::= 15

id-indexToRatFrequSelectionPriority ProtocolIE-ID ::= 16

id-initiatingNodeType-ResourceCoordRequest ProtocolIE-ID ::= 17

id-List-of-served-cells-E-UTRA ProtocolIE-ID ::= 18

id-List-of-served-cells-NR ProtocolIE-ID ::= 19

id-LocationReportingInformation ProtocolIE-ID ::= 20

id-MAC-I ProtocolIE-ID ::= 21

id-MaskedIMEISV ProtocolIE-ID ::= 22

id-M-NG-RANnodeUEXnAPID ProtocolIE-ID ::= 23

id-MN-to-SN-Container ProtocolIE-ID ::= 24

id-MobilityRestrictionList ProtocolIE-ID ::= 25

id-new-NG-RAN-Cell-Identity ProtocolIE-ID ::= 26

id-newNG-RANnodeUEXnAPID ProtocolIE-ID ::= 27

id-UEReportRRCTransfer ProtocolIE-ID ::= 28

id-oldNG-RANnodeUEXnAPID ProtocolIE-ID ::= 29

id-OldtoNewNG-RANnodeResumeContainer ProtocolIE-ID ::= 30

id-PagingDRX ProtocolIE-ID ::= 31

id-PCellID ProtocolIE-ID ::= 32

id-PDCPChangeIndication ProtocolIE-ID ::= 33

id-PDUSessionAdmittedAddedAddReqAck ProtocolIE-ID ::= 34

id-PDUSessionAdmittedModSNModConfirm ProtocolIE-ID ::= 35

id-PDUSessionAdmitted-SNModResponse ProtocolIE-ID ::= 36

id-PDUSessionNotAdmittedAddReqAck ProtocolIE-ID ::= 37

id-PDUSessionNotAdmitted-SNModResponse ProtocolIE-ID ::= 38

id-PDUSessionReleasedList-RelConf ProtocolIE-ID ::= 39

id-PDUSessionReleasedSNModConfirm ProtocolIE-ID ::= 40

id-PDUSessionResourcesActivityNotifyList ProtocolIE-ID ::= 41

id-PDUSessionResourcesAdmitted-List ProtocolIE-ID ::= 42

id-PDUSessionResourcesNotAdmitted-List ProtocolIE-ID ::= 43

id-PDUSessionResourcesNotifyList ProtocolIE-ID ::= 44

id-PDUSession-SNChangeConfirm-List ProtocolIE-ID ::= 45

id-PDUSession-SNChangeRequired-List ProtocolIE-ID ::= 46

id-PDUSessionToBeAddedAddReq ProtocolIE-ID ::= 47

id-PDUSessionToBeModifiedSNModRequired ProtocolIE-ID ::= 48

id-PDUSessionToBeReleasedList-RelRqd ProtocolIE-ID ::= 49

id-PDUSessionToBeReleased-RelReq ProtocolIE-ID ::= 50

id-PDUSessionToBeReleasedSNModRequired ProtocolIE-ID ::= 51

id-RANPagingArea ProtocolIE-ID ::= 52

id-PagingPriority ProtocolIE-ID ::= 53

id-requestedSplitSRB ProtocolIE-ID ::= 54

id-requestedSplitSRBrelease ProtocolIE-ID ::= 55

id-ResetRequestTypeInfo ProtocolIE-ID ::= 56

id-ResetResponseTypeInfo ProtocolIE-ID ::= 57

id-RespondingNodeTypeConfigUpdateAck ProtocolIE-ID ::= 58

id-respondingNodeType-ResourceCoordResponse ProtocolIE-ID ::= 59

id-ResponseInfo-ReconfCompl ProtocolIE-ID ::= 60

id-RRCConfigIndication ProtocolIE-ID ::= 61

id-RRCResumeCause ProtocolIE-ID ::= 62

id-SCGConfigurationQuery ProtocolIE-ID ::= 63

id-selectedPLMN ProtocolIE-ID ::= 64

id-ServedCellsToActivate ProtocolIE-ID ::= 65

id-servedCellsToUpdate-E-UTRA ProtocolIE-ID ::= 66

id-ServedCellsToUpdateInitiatingNodeChoice ProtocolIE-ID ::= 67

id-servedCellsToUpdate-NR ProtocolIE-ID ::= 68

id-s-ng-RANnode-SecurityKey ProtocolIE-ID ::= 69

id-S-NG-RANnodeUE-AMBR ProtocolIE-ID ::= 70

id-S-NG-RANnodeUEXnAPID ProtocolIE-ID ::= 71

id-SN-to-MN-Container ProtocolIE-ID ::= 72

id-sourceNG-RANnodeUEXnAPID ProtocolIE-ID ::= 73

id-SplitSRB-RRCTransfer ProtocolIE-ID ::= 74

id-TAISupport-list ProtocolIE-ID ::= 75

id-TimeToWait ProtocolIE-ID ::= 76

id-Target2SourceNG-RANnodeTranspContainer ProtocolIE-ID ::= 77

id-targetCellGlobalID ProtocolIE-ID ::= 78

id-targetNG-RANnodeUEXnAPID ProtocolIE-ID ::= 79

id-target-S-NG-RANnodeID ProtocolIE-ID ::= 80

id-TraceActivation ProtocolIE-ID ::= 81

id-UEContextID ProtocolIE-ID ::= 82

id-UEContextInfoHORequest ProtocolIE-ID ::= 83

id-UEContextInfoRetrUECtxtResp ProtocolIE-ID ::= 84

id-UEContextInfo-SNModRequest ProtocolIE-ID ::= 85

id-UEContextKeptIndicator ProtocolIE-ID ::= 86

id-UEContextRefAtSN-HORequest ProtocolIE-ID ::= 87

id-UEHistoryInformation ProtocolIE-ID ::= 88

id-UEIdentityIndexValue ProtocolIE-ID ::= 89

id-UERANPagingIdentity ProtocolIE-ID ::= 90

id-UESecurityCapabilities ProtocolIE-ID ::= 91

id-UserPlaneTrafficActivityReport ProtocolIE-ID ::= 92

id-XnRemovalThreshold ProtocolIE-ID ::= 93

id-DesiredActNotificationLevel ProtocolIE-ID ::= 94

id-AvailableDRBIDs ProtocolIE-ID ::= 95

id-AdditionalDRBIDs ProtocolIE-ID ::= 96

id-SpareDRBIDs ProtocolIE-ID ::= 97

id-RequiredNumberOfDRBIDs ProtocolIE-ID ::= 98

id-TNLA-To-Add-List ProtocolIE-ID ::= 99

id-TNLA-To-Update-List ProtocolIE-ID ::= 100

id-TNLA-To-Remove-List ProtocolIE-ID ::= 101

id-TNLA-Setup-List ProtocolIE-ID ::= 102

id-TNLA-Failed-To-Setup-List ProtocolIE-ID ::= 103

id-PDUSessionToBeReleased-RelReqAck ProtocolIE-ID ::= 104

id-S-NG-RANnodeMaxIPDataRate-UL ProtocolIE-ID ::= 105

id-PDUSessionResourceSecondaryRATUsageList ProtocolIE-ID ::= 107

id-Additional-UL-NG-U-TNLatUPF-List ProtocolIE-ID ::= 108

id-SecondarydataForwardingInfoFromTarget-List ProtocolIE-ID ::= 109

id-LocationInformationSNReporting ProtocolIE-ID ::= 110

id-LocationInformationSN ProtocolIE-ID ::= 111

id-LastE-UTRANPLMNIdentity ProtocolIE-ID ::= 112

id-S-NG-RANnodeMaxIPDataRate-DL ProtocolIE-ID ::= 113

id-MaxIPrate-DL ProtocolIE-ID ::= 114

id-SecurityResult ProtocolIE-ID ::= 115

id-S-NSSAI ProtocolIE-ID ::= 116

id-MR-DC-ResourceCoordinationInfo ProtocolIE-ID ::= 117

id-AMF-Region-Information-To-Add ProtocolIE-ID ::= 118

id-AMF-Region-Information-To-Delete ProtocolIE-ID ::= 119

id-OldQoSFlowMap-ULendmarkerexpected ProtocolIE-ID ::= 120

id-RANPagingFailure ProtocolIE-ID ::= 121

id-UERadioCapabilityForPaging ProtocolIE-ID ::= 122

id-PDUSessionDataForwarding-SNModResponse ProtocolIE-ID ::= 123

id-DRBsNotAdmittedSetupModifyList ProtocolIE-ID ::= 124

id-Secondary-MN-Xn-U-TNLInfoatM ProtocolIE-ID ::= 125

id-NE-DC-TDM-Pattern ProtocolIE-ID ::= 126

id-PDUSessionCommonNetworkInstance ProtocolIE-ID ::= 127

id-BPLMN-ID-Info-EUTRA ProtocolIE-ID ::= 128

id-BPLMN-ID-Info-NR ProtocolIE-ID ::= 129

id-InterfaceInstanceIndication ProtocolIE-ID ::= 130

id-S-NG-RANnode-Addition-Trigger-Ind ProtocolIE-ID ::= 131

id-DefaultDRB-Allowed ProtocolIE-ID ::= 132

id-DRB-IDs-takenintouse ProtocolIE-ID ::= 133

id-SplitSessionIndicator ProtocolIE-ID ::= 134

id-CNTypeRestrictionsForEquivalent ProtocolIE-ID ::= 135

id-CNTypeRestrictionsForServing ProtocolIE-ID ::= 136

id-DRBs-transferred-to-MN ProtocolIE-ID ::= 137

id-ULForwardingProposal ProtocolIE-ID ::= 138

id-EndpointIPAddressAndPort ProtocolIE-ID ::= 139

id-IntendedTDD-DL-ULConfiguration-NR ProtocolIE-ID ::= 140

id-TNLConfigurationInfo ProtocolIE-ID ::= 141

id-PartialListIndicator-NR ProtocolIE-ID ::= 142

id-MessageOversizeNotification ProtocolIE-ID ::= 143

id-CellAndCapacityAssistanceInfo-NR ProtocolIE-ID ::= 144

id-NG-RANTraceID ProtocolIE-ID ::= 145

id-NonGBRResources-Offered ProtocolIE-ID ::= 146

id-FastMCGRecoveryRRCTransfer-SN-to-MN ProtocolIE-ID ::= 147

id-RequestedFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 148

id-AvailableFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 149

id-RequestedFastMCGRecoveryViaSRB3Release ProtocolIE-ID ::= 150

id-ReleaseFastMCGRecoveryViaSRB3 ProtocolIE-ID ::= 151

id-FastMCGRecoveryRRCTransfer-MN-to-SN ProtocolIE-ID ::= 152

id-ExtendedRATRestrictionInformation ProtocolIE-ID ::= 153

id-QoSMonitoringRequest ProtocolIE-ID ::= 154

id-FiveGCMobilityRestrictionListContainer ProtocolIE-ID ::= 155

id-PartialListIndicator-EUTRA ProtocolIE-ID ::= 156

id-CellAndCapacityAssistanceInfo-EUTRA ProtocolIE-ID ::= 157

id-CHOinformation-Req ProtocolIE-ID ::= 158

id-CHOinformation-Ack ProtocolIE-ID ::= 159

id-targetCellsToCancel ProtocolIE-ID ::= 160

id-requestedTargetCellGlobalID ProtocolIE-ID ::= 161

id-procedureStage ProtocolIE-ID ::= 162

id-DAPSRequestInfo ProtocolIE-ID ::= 163

id-DAPSResponseInfo-List ProtocolIE-ID ::= 164

id-CHO-MRDC-Indicator ProtocolIE-ID ::= 165

id-OffsetOfNbiotChannelNumberToDL-EARFCN ProtocolIE-ID ::= 166

id-OffsetOfNbiotChannelNumberToUL-EARFCN ProtocolIE-ID ::= 167

id-NBIoT-UL-DL-AlignmentOffset ProtocolIE-ID ::= 168

id-LTEV2XServicesAuthorized ProtocolIE-ID ::= 169

id-NRV2XServicesAuthorized ProtocolIE-ID ::= 170

id-LTEUESidelinkAggregateMaximumBitRate ProtocolIE-ID ::= 171

id-NRUESidelinkAggregateMaximumBitRate ProtocolIE-ID ::= 172

id-PC5QoSParameters ProtocolIE-ID ::= 173

id-AlternativeQoSParaSetList ProtocolIE-ID ::= 174

id-CurrentQoSParaSetIndex ProtocolIE-ID ::= 175

id-MobilityInformation ProtocolIE-ID ::= 176

id-InitiatingCondition-FailureIndication ProtocolIE-ID ::= 177

id-UEHistoryInformationFromTheUE ProtocolIE-ID ::= 178

id-HandoverReportType ProtocolIE-ID ::= 179

id-HandoverCause ProtocolIE-ID ::= 180

id-SourceCellCGI ProtocolIE-ID ::= 181

id-TargetCellCGI ProtocolIE-ID ::= 182

id-ReEstablishmentCellCGI ProtocolIE-ID ::= 183

id-TargetCellinEUTRAN ProtocolIE-ID ::= 184

id-SourceCellCRNTI ProtocolIE-ID ::= 185

id-UERLFReportContainer ProtocolIE-ID ::= 186

id-NGRAN-Node1-Measurement-ID ProtocolIE-ID ::= 187

id-NGRAN-Node2-Measurement-ID ProtocolIE-ID ::= 188

id-RegistrationRequest ProtocolIE-ID ::= 189

id-ReportCharacteristics ProtocolIE-ID ::= 190

id-CellToReport ProtocolIE-ID ::= 191

id-ReportingPeriodicity ProtocolIE-ID ::= 192

id-CellMeasurementResult ProtocolIE-ID ::= 193

id-NG-RANnode1CellID ProtocolIE-ID ::= 194

id-NG-RANnode2CellID ProtocolIE-ID ::= 195

id-NG-RANnode1MobilityParameters ProtocolIE-ID ::= 196

id-NG-RANnode2ProposedMobilityParameters ProtocolIE-ID ::= 197

id-MobilityParametersModificationRange ProtocolIE-ID ::= 198

id-TDDULDLConfigurationCommonNR ProtocolIE-ID ::= 199

id-CarrierList ProtocolIE-ID ::= 200

id-ULCarrierList ProtocolIE-ID ::= 201

id-FrequencyShift7p5khz ProtocolIE-ID ::= 202

id-SSB-PositionsInBurst ProtocolIE-ID ::= 203

id-NRCellPRACHConfig ProtocolIE-ID ::= 204

id-RACHReportInformation ProtocolIE-ID ::= 205

id-IABNodeIndication ProtocolIE-ID ::= 206

id-Redundant-UL-NG-U-TNLatUPF ProtocolIE-ID ::= 207

id-CNPacketDelayBudgetDownlink ProtocolIE-ID ::= 208

id-CNPacketDelayBudgetUplink ProtocolIE-ID ::= 209

id-Additional-Redundant-UL-NG-U-TNLatUPF-List ProtocolIE-ID ::= 210

id-RedundantCommonNetworkInstance ProtocolIE-ID ::= 211

id-TSCTrafficCharacteristics ProtocolIE-ID ::= 212

id-RedundantQoSFlowIndicator ProtocolIE-ID ::= 213

id-Redundant-DL-NG-U-TNLatNG-RAN ProtocolIE-ID ::= 214

id-ExtendedPacketDelayBudget ProtocolIE-ID ::= 215

id-Additional-PDCP-Duplication-TNL-List ProtocolIE-ID ::= 216

id-RedundantPDUSessionInformation ProtocolIE-ID ::= 217

id-UsedRSNInformation ProtocolIE-ID ::= 218

id-RLCDuplicationInformation ProtocolIE-ID ::= 219

id-NPN-Broadcast-Information ProtocolIE-ID ::= 220

id-NPNPagingAssistanceInformation ProtocolIE-ID ::= 221

id-NPNMobilityInformation ProtocolIE-ID ::= 222

id-NPN-Support ProtocolIE-ID ::= 223

id-MDT-Configuration ProtocolIE-ID ::= 224

id-MDTPLMNList ProtocolIE-ID ::= 225

id-TraceCollectionEntityURI ProtocolIE-ID ::= 226

id-UERadioCapabilityID ProtocolIE-ID ::= 227

id-CSI-RSTransmissionIndication ProtocolIE-ID ::= 228

id-SNTriggered ProtocolIE-ID ::= 229

id-DLCarrierList ProtocolIE-ID ::= 230

id-ExtendedTAISliceSupportList ProtocolIE-ID ::= 231

id-cellAssistanceInfo-EUTRA ProtocolIE-ID ::= 232

id-ConfiguredTACIndication ProtocolIE-ID ::= 233

id-secondary-SN-UL-PDCP-UP-TNLInfo ProtocolIE-ID ::= 234

id-pdcpDuplicationConfiguration ProtocolIE-ID ::= 235

id-duplicationActivation ProtocolIE-ID ::= 236

id-NPRACHConfiguration ProtocolIE-ID ::= 237

id-QosMonitoringReportingFrequency ProtocolIE-ID ::= 238

id-QoSFlowsMappedtoDRB-SetupResponse-MNterminated ProtocolIE-ID ::= 239

id-DL-scheduling-PDCCH-CCE-usage ProtocolIE-ID ::= 240

id-UL-scheduling-PDCCH-CCE-usage ProtocolIE-ID ::= 241

id-SFN-Offset ProtocolIE-ID ::= 242

id-QoSMonitoringDisabled ProtocolIE-ID ::= 243

id-ExtendedUEIdentityIndexValue ProtocolIE-ID ::= 244

id-PagingeDRXInformation ProtocolIE-ID ::= 245

id-CHO-MRDC-EarlyDataForwarding ProtocolIE-ID ::= 246

id-SCGIndicator ProtocolIE-ID ::= 247

id-UESpecificDRX ProtocolIE-ID ::= 248

id-PDUSessionExpectedUEActivityBehaviour ProtocolIE-ID ::= 249

id-QoS-Mapping-Information ProtocolIE-ID ::= 250

id-AdditionLocationInformation ProtocolIE-ID ::= 251

id-dataForwardingInfoFromTargetE-UTRANnode ProtocolIE-ID ::= 252

id-UESliceMaximumBitRateList ProtocolIE-ID ::= xxx

id-S-NG-RANnodeUE-Slice-MBR ProtocolIE-ID ::= yyy

END

-- ASN1STOP

9.3.8 Container definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XnAP-Containers {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- IE parameter types from other modules.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

IMPORTS

maxPrivateIEs,

maxProtocolExtensions,

maxProtocolIEs,

Criticality,

Presence,

PrivateIE-ID,

ProtocolIE-ID

FROM XnAP-CommonDataTypes;

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-PROTOCOL-IES ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&criticality Criticality,

&Value,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

TYPE &Value

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol IE pairs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-PROTOCOL-IES-PAIR ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&firstCriticality Criticality,

&FirstValue,

&secondCriticality Criticality,

&SecondValue,

&presence Presence

}

WITH SYNTAX {

ID &id

FIRST CRITICALITY &firstCriticality

FIRST TYPE &FirstValue

SECOND CRITICALITY &secondCriticality

SECOND TYPE &SecondValue

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Protocol Extensions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-PROTOCOL-EXTENSION ::= CLASS {

&id ProtocolIE-ID UNIQUE,

&criticality Criticality,

&Extension,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

EXTENSION &Extension

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Class Definition for Private IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XNAP-PRIVATE-IES ::= CLASS {

&id PrivateIE-ID,

&criticality Criticality,

&Value,

&presence Presence

}

WITH SYNTAX {

ID &id

CRITICALITY &criticality

TYPE &Value

PRESENCE &presence

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolIE-Container {XNAP-PROTOCOL-IES : IEsSetParam} ::=

SEQUENCE (SIZE (0..maxProtocolIEs)) OF

ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Single-Container {XNAP-PROTOCOL-IES : IEsSetParam} ::= ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {XNAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {

id XNAP-PROTOCOL-IES.&id ({IEsSetParam}),

criticality XNAP-PROTOCOL-IES.&criticality ({IEsSetParam}{@id}),

value XNAP-PROTOCOL-IES.&Value ({IEsSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol IE Pairs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolIE-ContainerPair {XNAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=

SEQUENCE (SIZE (0..maxProtocolIEs)) OF

ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {XNAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {

id XNAP-PROTOCOL-IES-PAIR.&id ({IEsSetParam}),

firstCriticality XNAP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),

firstValue XNAP-PROTOCOL-IES-PAIR.&FirstValue ({IEsSetParam}{@id}),

secondCriticality XNAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),

secondValue XNAP-PROTOCOL-IES-PAIR.&SecondValue ({IEsSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container Lists for Protocol IE Containers

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, XNAP-PROTOCOL-IES : IEsSetParam} ::=

SEQUENCE (SIZE (lowerBound..upperBound)) OF

ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, XNAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=

SEQUENCE (SIZE (lowerBound..upperBound)) OF

ProtocolIE-ContainerPair {{IEsSetParam}}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Protocol Extensions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ProtocolExtensionContainer {XNAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE (SIZE (1..maxProtocolExtensions)) OF

ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {XNAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {

id XNAP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),

criticality XNAP-PROTOCOL-EXTENSION.&criticality ({ExtensionSetParam}{@id}),

extensionValue XNAP-PROTOCOL-EXTENSION.&Extension ({ExtensionSetParam}{@id})

}

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Container for Private IEs

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PrivateIE-Container {XNAP-PRIVATE-IES : IEsSetParam} ::=

SEQUENCE (SIZE (1..maxPrivateIEs)) OF

PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {XNAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {

id XNAP-PRIVATE-IES.&id ({IEsSetParam}),

criticality XNAP-PRIVATE-IES.&criticality ({IEsSetParam}{@id}),

value XNAP-PRIVATE-IES.&Value ({IEsSetParam}{@id})

}

END

-- ASN1STOP

*<End of change>*